EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S4	7	(("3790525") or ("4212974") or ("3899464") or ("3790525") or ("3940401") or ("4710527") or ("4804699") or ("4578410")).PN.	US-PGPUB; USPAT	OR	OFF	2006/12/06 08:13
S5	5	("4578410").URPN.	USPAT	OR	ON	2006/12/06 08:03
S6	724	(524/102).CCLS.	US-PGPUB; USPAT	OR	OFF	2006/12/06 08:13
S8	640	S6 and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:26
S9	1	TAA adj ketal$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 08:15
S10	15298	TAA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 14:55
S11	2	S8 AND S10	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 08:17
S13	125	triacetonamine	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 08:17
S14	9	S10 and S13	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 08:18
S15	2	S8 and S10	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 08:19
S17	222	"2,2,6,6-tetramethyl-4-piperidone"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:09
S18	3	("4250313").URPN.	USPAT	OR	ON	2006/12/06 08:24
S19	1	"2-(hydroxymethyl)-7,7,9, 9-tetramethyl-1,4-dioxa-8-azaspiro[4. 5]decane"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:47

EAST Search History

S20	3	"7,7,9,9-tetramethyl-1, 4-dioxa-8-azaspiro[4.5]decane"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:18
S21	3	("4413076").URPN.	USPAT	OR	ON	2006/12/06 10:17
S22	4	("4371644").URPN.	USPAT	OR	ON	2006/12/06 10:18
S23	1	"2-butyl-7,7,9,9-tetramethyl-1, 4-dioxa-8-azaspiro[4.5]decane"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:19
S24	0	"8,8,10,10-tetramethyl-l, 5-dioxa-9-azaspiro[5.5]undecane"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:19
S25	35114	"hydrogen chloride" and cataly$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 11:51
S26	24509	ketal$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:49
S27	2647	S25 and S26	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:49
S28	791	"hydroxyl derivative"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:50
S29	106	S26 and S28	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 11:56
S30	83	S25 and S28	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 10:51
S31	0	"hydrogen chloride cataly$"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:01
S32	38	S27 and S28	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 11:56
S33	3	("4250313").URPN.	USPAT	OR	ON	2006/12/06 13:22
S34	4	("4250312").URPN.	USPAT	OR	ON	2006/12/06 13:23

EAST Search History

S35	5	("4212974").URPN.	USPAT	OR	ON	2006/12/06 13:27
S36	5	("4578410").URPN.	USPAT	OR	ON	2006/12/06 13:29
S37	15298	TAA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 14:55
S39	74	S37 near5 alcohol	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 14:56
S40	791	"hydroxyl derivative"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 14:57
S41	1	S37 and S40	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 14:58
S42	125	triacetonamine	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 14:58
S43	2	S40 and S42	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:16
S44	667	HCl adj cataly$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:17
S45	0	S42 and S44	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:23
S46	0	S37 and S44	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:24
S47	0	S40 and S44	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:18
S48	222	"2,2,6,6-tetramethyl-4-piperidone"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:18

EAST Search History

S49	0	S48 and S44	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:18
S50	3961	hydrogen adj chloride near5 cataly$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:31
S51	1	S42 and S50	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:31
S52	0	S42 and S44	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:24
S53	369	ketal$ and S50	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:25
S54	1	S48 and S53	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:25
S55	329	S53 and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:32
S56	1	S42 and S55	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:26
S57	1099	hydrogen adj chloride near cataly$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:31
S58	0	S42 and S57	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:32
S59	960	S57 and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:32
S60	0	S48 and S59	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:33

EAST Search History

S61	0	S42 and S59	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 15:33
S62	225	ketal$ and S59	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/12/06 16:48
S63	2	(("56025185") or ("56138189")).PN.	JPO	OR	OFF	2006/12/06 16:48
S64	50168	"hydrogen chloride" and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:04
S65	140147	cataly$.clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:02
S66	114593	S65 and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:03
S67	6496	S64 and S66	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:04
S68	195493	"hydrochloric acid" and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:04
S69	1352	"hydrochloric acid gas" and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:13
S70	9294	"hydrogen chloride gas" and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:14
S71	15	S66 and S69 and S70	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:05
S72	3	("4029886").URPN.	USPAT	OR	ON	2007/02/06 15:07
S73	5	("4191692").URPN.	USPAT	OR	ON	2007/02/06 15:09
S74	4	("4634781").URPN.	USPAT	OR	ON	2007/02/06 15:11
S75	288	"hydrochloric acid vapor" and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:13

EAST Search History

S76	187	"hydrogen chloride vapor" and @ad<="20030201"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:14
S77	0	S66 and S75 and S76	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:17
S78	23	S66 and S75	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:17
S79	37	S66 and S76	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/06 15:18
S80	0	("7173142").URPN.	USPAT	OR	ON	2007/02/06 15:19

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L9             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  TRIACETONAMINE/CN
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L28          195 SEA FILE=REGISTRY ABB=ON  PLU=ON  L27 NOT 1-100/P
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L31          138 SEA FILE=REGISTRY ABB=ON  PLU=ON  L30 NOT 1-100/SI
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L33          236 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4
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L36          742 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8
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L52          732 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21
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L56            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L54 AND L55
L57       141691 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L43 OR L44 OR L45 OR L46
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L4          1024 SEA FILE=REGISTRY ABB=ON  PLU=ON  833.145.1/RID
L5          6348 SEA FILE=REGISTRY ABB=ON  PLU=ON  491.117.1/RID
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L12           88 SEA FILE=REGISTRY ABB=ON  PLU=ON  2268.36/RID
L13            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  108-88-3/RN
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L26          296 SEA FILE=REGISTRY ABB=ON  PLU=ON  L25 AND DIOXA?
L27          288 SEA FILE=REGISTRY ABB=ON  PLU=ON  L26 NOT 1-100/M
L28          195 SEA FILE=REGISTRY ABB=ON  PLU=ON  L27 NOT 1-100/P
L29          180 SEA FILE=REGISTRY ABB=ON  PLU=ON  L28 NOT 1-100/S
L30          140 SEA FILE=REGISTRY ABB=ON  PLU=ON  L29 NOT 5-100/NR
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L33          236 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4
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L53       112275 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L49 OR L50 OR L51 OR
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DOCUMENT NUMBER: 143:477849
TITLE: Process for the preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines
INVENTOR(S): Osterholt, Clemens; Poll, Heinz-Guenter; Meyer, Oliver; Kuebelbaeck, Thomas
PATENT ASSIGNEE(S): Degussa A.-G., Germany
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1595868	A1	20051116	EP 2005-102210	20050321
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
DE 102004023640	A1	20051208	DE 2004-102004023640	20040510
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CA 2506407	A1	20051110	CA 2005-2506407	20050506
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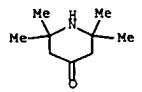
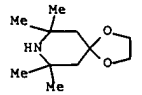
CN 1699345	A	20051123	CN 2005-10071281	20050509
BR 2005001796	A	20060110	BR 2005-1796	20050509
US 2005256312	A1	20051117	US 2005-125149	20050510
PRIORITY APPLN. INFO.:			DE 2004-102004023640A	20040510

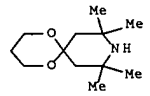
OTHER SOURCE(S): CASREACT 143:477849; MARPAT 143:477849
ED Entered STN: 16 Nov 2005
AB The process for the preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines, I [XY = O, OCH2CH2O, OCHMeCH2O, OCH(CH2OH)CH2O, O(CH2)3O, OCH2CMe2CH2O; X = OR1; Y = OR2; R1, R2 = Me, Et, CH2Et, CHMe2, Bu, CH2CHMe2] and II, resp., comprises oxidation of III with H2O2 in the presence of an alkali and/or an ammonium hydrogen carbonate and in the presence of a solution medium, and is characterized by addition to the reaction of a Bronsted acid that is stronger than the hydrogen carbonate. Thus, triacetonamine ethylene ketal (III; XY = OCH2CH2O) is treated with aqueous H2O2 and NaHCO3 to which H3PO4 is added yielding I (XY = OCH2CH2O) and II (XY = OCH2CH2O) in 78% overall yield.
IT **826-36-8 36793-27-8**, Triacetoneamine ethylene ketal **36793-28-9**, Triacetoneamine propylene ketal **53825-32-4**, Triacetoneamine glycerol ketal **55490-49-8**, Triacetoneamine 2,2-dimethylpropylene ketal **154186-25-1**
(N-oxidation of; preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



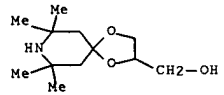
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



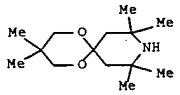
RN 36793-28-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



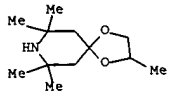
RN 53825-32-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



RN 55490-49-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,8,10,10-hexamethyl- (9CI) (CA INDEX NAME)



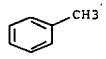
RN 154186-25-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,7,7,9,9-pentamethyl- (9CI) (CA INDEX NAME)



IT **107-21-1**, Ethylene glycol, uses **107-21-1D**, 1,2-Ethanediol, alkyl ether **108-88-3**, Toluene, uses **110-82-7**, Cyclohexane, uses **142-82-5**, Heptane, uses **1330-20-7**, Xylene, uses **1678-91-7**, Ethylcyclohexane
(N-oxidation solvent; preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines)
RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

RN 108-88-3 HCAPLUS
CN Benzene, methyl- (9CI) (CA INDEX NAME)



RN 110-82-7 HCAPLUS

CN Cyclohexane (8CI, 9CI) (CA INDEX NAME)

RN 142-82-5 HCAPLUS
CN Heptane (8CI, 9CI) (CA INDEX NAME)

RN 1330-20-7 HCAPLUS
CN Benzene, dimethyl- (9CI) (CA INDEX NAME)

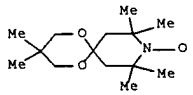
RN 1678-91-7 HCAPLUS
CN Cyclohexane, ethyl- (8CI, 9CI) (CA INDEX NAME)

IT **7647-01-0**, Hydrochloric acid, uses
(preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines)
RN 7647-01-0 HCAPLUS
CN Hydrochloric acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

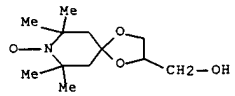
IT **98254-32-1P**, N-Oxytriacetoneamine 2,2-dimethylpropylene ketal
150980-90-8P, N-Oxytriacetoneamine glycerol ketal
150980-92-0P, N-Oxytriacetoneamine ethylene ketal

154186-17-1P 482641-70-3P, N-Oxytriacetoneamine propylene ketal **869353-09-3P**, N-Hydroxytriacetoneamine ethylene ketal **869353-10-6P 869353-11-7P**, N-Hydroxytriacetoneamine glycerol ketal **869353-12-8P**, N-Hydroxytriacetoneamine propylene ketal **869353-13-9P**, N-Hydroxytriacetoneamine 2,2-dimethylpropylene ketal (preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines)

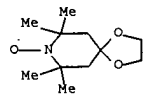
RN 98254-32-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3,3,8,8,10,10-hexamethyl- (9CI) (CA INDEX NAME)



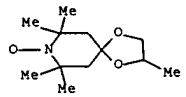
RN 150980-90-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]dec-8-yloxy, 2-(hydroxymethyl)-7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



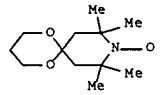
RN 150980-92-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]dec-8-yloxy, 7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



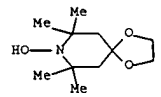
RN 154186-17-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]dec-8-yloxy, 2,7,7,9,9-pentamethyl- (9CI) (CA INDEX NAME)



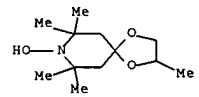
RN 482641-70-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



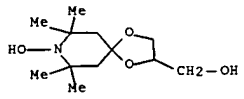
RN 869353-09-3 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 8-hydroxy-7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



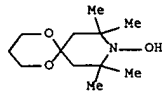
RN 869353-10-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 8-hydroxy-2,7,7,9,9-pentamethyl- (9CI) (CA INDEX NAME)



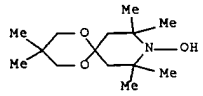
RN 869353-11-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 8-hydroxy-7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



RN 869353-12-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 9-hydroxy-8,8,10,10-tetramethyl-(9CI) (CA INDEX NAME)



RN 869353-13-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 9-hydroxy-3,3,8,8,10,10-hexamethyl-(9CI) (CA INDEX NAME)



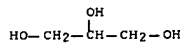
IC ICM C07D211-94
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 23, 25, 67, 78
IT **826-36-8 36793-27-8**, Triacetoneamine ethylene ketal
36793-28-9, Triacetoneamine propylene ketal **53825-32-4**
, Triacetoneamine glycerol ketal **55490-49-8**, Triacetoneamine 2,2-dimethylpropylene ketal **154186-25-1**
(N-oxidation of; preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines)
IT 57-55-6, Propylene glycol, uses 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-63-0, Isopropanol, uses 67-64-1, Acetone, uses 71-23-8, 1-Propanol, uses 71-36-3, 1-Butanol, uses 75-65-0, tert-Butanol, uses 78-83-1, Isobutanol, uses **107-21-1**, Ethylene glycol, uses **107-21-1D**, 1,2-Ethanediol, alkyl ether **108-88-3**, Toluene, uses 109-99-9, Tetrahydrofuran, uses 110-80-5 **110-82-7**, Cyclohexane, uses 111-46-6, Ethylene diglycol, uses 123-91-1, 1,4-Dioxane, uses **142-82-5**, Heptane, uses 505-22-6, 1,3-Dioxane **1330-20-7**, Xylene, uses **1678-91-7**, Ethylcyclohexane 25265-71-8 32718-54-0, Methoxyethanol
(N-oxidation solvent; preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines)

IT 7558-79-4, Disodium hydrogen phosphate 7558-80-7, Sodium dihydrogen phosphate **7647-01-0**, Hydrochloric acid, uses
(preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines)
IT 2896-70-0P, Triacetoneamine nitroxide 3637-11-4P **98254-32-1P**
, N-Oxytriacetoneamine 2,2-dimethylpropylene ketal **150980-90-8P**, N-Oxytriacetoneamine glycerol ketal **150980-92-0P**, N-Oxytriacetoneamine ethylene ketal **154186-17-1P 482641-70-3P**, N-Oxytriacetoneamine propylene ketal **869353-09-3P**, N-Hydroxytriacetoneamine ethylene ketal **869353-10-6P 869353-11-7P**, N-Hydroxytriacetoneamine glycerol ketal **869353-12-8P**, N-Hydroxytriacetoneamine propylene ketal **869353-13-9P**, N-Hydroxytriacetoneamine 2,2-dimethylpropylene ketal
(preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:625845 HCAPLUS Full-text
DOCUMENT NUMBER: 141:174161
TITLE: Process for the preparation of ketals of triacetoneamine
INVENTOR(S): Meyer, Oliver; Uhlenberg, Renate; Korell, Michael
PATENT ASSIGNEE(S): Degussa A.-G., Germany
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

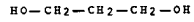
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1443049	A1	20040804	EP 2003-104546	20031204
EP 1443049	B1	20050330		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
DE 10304055	A1	20040812	DE 2003-10304055	20030201
US 2004152920	A1	20040805	US 2003-619436	20030716
AT 292130	T	20050415	AT 2003-104546	20031204
NO 2004000461	A	20040802	NO 2004-461	20040202
PRIORITY APPLN. INFO.:			DE 2003-10304055 A	20030201

OTHER SOURCE(S): CASREACT 141:174161; MARPAT 141:174161
ED Entered STN: 05 Aug 2004
AB A procedure for the ketalization of triacetoneamine is characterized by reaction of triacetoneamine with a hydroxy compound with one or more hydroxy groups in the presence of gaseous HCl with the formation of a cyclic ketal. Thus, 2-(hydroxymethyl)-7,7,9,9-tetramethyl-1,4-dioxa-8- azaspiro[4,5]decane (I) was prepared from triacetoneamine and glycerin in PhMe contg HCl.
IT **56-81-5**, Glycerin, reactions **107-21-1**, Ethylene glycol, reactions **504-63-2**, 1,3-Propanediol **6920-22-5**, 1,2-Hexanediol
(ketalization by, of triacetoneamine; preparation of the ketals of triacetoneamine)
RN 56-81-5 HCAPLUS
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

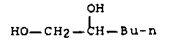


RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

RN 504-63-2 HCAPLUS
CN 1,3-Propanediol (8CI, 9CI) (CA INDEX NAME)

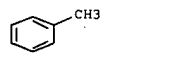


RN 6920-22-5 HCAPLUS
CN 1,2-Hexanediol (7CI, 8CI, 9CI) (CA INDEX NAME)



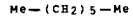
IT **7647-01-0**, Hydrogen chloride, uses
(ketalization catalyst; preparation of the ketals of triacetoneamine)
RN 7647-01-0 HCAPLUS
CN Hydrochloric acid (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

IT **108-88-3**, Toluene, uses **110-82-7**, Cyclohexane, uses
142-82-5, Heptane, uses **1330-20-7**, Xylene, uses
1678-91-7, Ethylcyclohexane
(ketalization solvent; preparation of the ketals of triacetoneamine)
RN 108-88-3 HCAPLUS
CN Benzene, methyl- (9CI) (CA INDEX NAME)

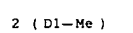


RN 110-82-7 HCAPLUS
CN Cyclohexane (8CI, 9CI) (CA INDEX NAME)

RN 142-82-5 HCAPLUS
CN Heptane (8CI, 9CI) (CA INDEX NAME)

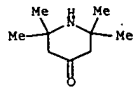


RN 1330-20-7 HCAPLUS
CN Benzene, dimethyl- (9CI) (CA INDEX NAME)



RN 1678-91-7 HCAPLUS
CN Cyclohexane, ethyl- (8CI, 9CI) (CA INDEX NAME)

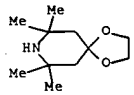
IT **826-36-8**
(preparation of the ketals of triacetoneamine)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **36793-27-8P**, 7,7,9,9-Tetramethyl-1,4-dioxa-8-azaspiro[4,5]decane **36793-28-9P**, 8,8,10,10-Tetramethyl-1,5-dioxa-9-azaspiro[4,5]undecane **53825-32-4P**, 2-(Hydroxymethyl)-7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4,5]decane **731858-27-8P**, 2-Butyl-7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4,5]decane
(preparation of the ketals of triacetoneamine)

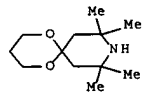
RN 36793-27-8 HCAPLUS

CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



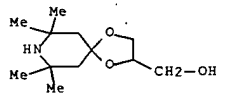
RN 36793-28-9 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



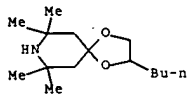
RN 53825-32-4 HCAPLUS

CN 1,4-Dioxa-8-azaspiro[4.5]decane-2-methanol, 7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



RN 731858-27-8 HCAPLUS

CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2-butyl-7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C07D491-10
ICS C07D317-00; C07D221-00; C07D319-00

CC 28-5 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 27

IT **56-81-5**, Glycerin, reactions **107-21-1**, Ethylene glycol, reactions **504-63-2**, 1,3-Propanediol **6920-22-5**, 1,2-Hexanediol
(ketalization by, of triacetoneamine; preparation of the ketals of triacetoneamine)

IT **7647-01-0**, Hydrogen chloride, uses
(ketalization catalyst; preparation of the ketals of triacetoneamine)

IT **108-88-3**, Toluene, uses **110-82-7**, Cyclohexane, uses **142-82-5**, Heptane, uses **1330-20-7**, Xylene, uses **1678-91-7**, Ethylcyclohexane
(ketalization solvent; preparation of the ketals of triacetoneamine)

IT **826-36-8**
(preparation of the ketals of triacetoneamine)

IT **36793-27-8P**, 7,7,9,9-Tetramethyl-1,4-dioxa-8-azaspiro[4,5]decane **36793-28-9P**, 8,8,10,10-Tetramethyl-1,5-dioxa-9-azaspiro[4,5]undecane **53825-32-4P**, 2-(Hydroxymethyl)-7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4,5]decane **731858-27-8P**, 2-Butyl-7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4,5]decane
(preparation of the ketals of triacetoneamine)

=> d l63 1-28 ibib ed ab hitstr hitind
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L63 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2006:1168798 HCAPLUS Full-text
DOCUMENT NUMBER:	145:471543
TITLE:	Preparation of hindered spiro-ketal nitroxides as polymerization inhibitors
INVENTOR(S):	Jawdosiuk, Mikolaj; Sosnovsky, George; Clumpner, Jon Michael; O'Lenick, Anthony J., Jr.
PATENT ASSIGNEE(S):	Nova Molecular Technologies Inc., USA
SOURCE:	U.S., 4pp., Cont.-in-part of U.S. Ser. No. 844,986. CODEN: USXXAM
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 7132540	B1	20061107	US 2004-949562	20040927
US 2003009031	A1	20030109	US 2001-844986	20010430
PRIORITY APPLN. INFO.:			US 2001-844986	A2 20010430

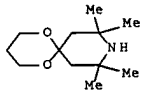
ED Entered STN: 08 Nov 2006

AB The present invention discloses a series of novel hindered spiro-ketal nitroxides I (R = H, Me, Et,) prepared by the ketalization reaction of 1,3-propanediols with triacetoneamine followed by oxidation Thus, I (R = H) was prepared from 1,5-dioxa-9-aza-8,8,10,10- tetramethylspiro[5,5]undecane (II) via N-oxidation with aqueous H2O2 in the presence of sodium tungstate in MeOH. These novel spiro-ketals have unexpected advantages in hydrocarbon and monomer solubility which is important in styrene processing and refinery stream inhibition. Further, the invention shows an unexpected advantage over com. available nitroxides in hydrocarbon solubility, especially in styrene and hydrocarbons. This invention also shows that these novel spiro-nitroxides are capable of inhibiting vinyl and acrylate polymns. using an effective inhibition concentration of the nitroxide of the present invention. The inhibition properties of I (R = H) were determined against polymerization of acrylonitrile, vinyl acetate and Me acrylate.

IT **36793-28-9**, 1,5-Dioxa-9-aza-8,8,10,10-tetramethylspiro[5,5]undecane
(N-oxidation of; preparation of hindered spiro-ketal nitroxides as polymerization inhibitors)

RN 36793-28-9 HCAPLUS

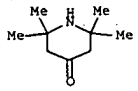
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



IT **826-36-8**
(ketalization by, of 1,3-propanediol; preparation of hindered spiro-ketal nitroxides as polymerization inhibitors)

RN 826-36-8 HCAPLUS

CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

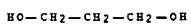


IT **504-63-2**, 1,3-Propanediol

(ketalization by, of triacetone amine; preparation of hindered spiro-ketal nitroxides as polymerization inhibitors)

RN 504-63-2 HCAPLUS

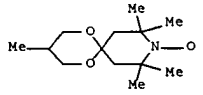
CN 1,3-Propanediol (8CI, 9CI) (CA INDEX NAME)



IT **482641-71-4 482641-73-6 482641-75-8 482641-77-0 482641-79-2 482641-80-5 482641-81-6**
(polymerization inhibitor; preparation of hindered spiro-ketal nitroxides as polymerization inhibitors)

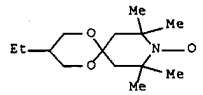
RN 482641-71-4 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3,8,8,10,10-pentamethyl- (9CI) (CA INDEX NAME)



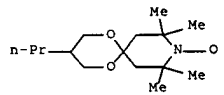
RN 482641-73-6 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3-ethyl-8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)

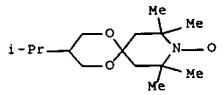


RN 482641-75-8 HCAPLUS

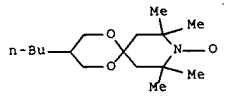
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 8,8,10,10-tetramethyl-3-propyl- (9CI) (CA INDEX NAME)



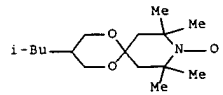
RN 482641-77-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 8,8,10,10-tetramethyl-3-(1-methylethyl)- (9CI) (CA INDEX NAME)



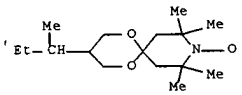
RN 482641-79-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3-butyl-8,8,10,10-tetramethyl-(9CI) (CA INDEX NAME)



RN 482641-80-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 8,8,10,10-tetramethyl-3-(2-methylpropyl)- (9CI) (CA INDEX NAME)

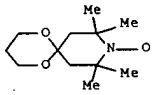


RN 482641-81-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 8,8,10,10-tetramethyl-3-(1-methylpropyl)- (9CI) (CA INDEX NAME)



IT **482641-70-3P**
(preparation and inhibition by, of polymerization of acrylonitrile, vinyl

acetate and acrylate; preparation of hindered spiro-ketal nitroxides as polymerization inhibitors)
RN 482641-70-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



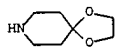
INCL 546019000; 546016000
CC 28-11 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 35
IT **36793-28-9**, 1,5-Dioxa-9-aza-8,8,10,10-tetramethylspiro[5,5]undecane
(N-oxidation of; preparation of hindered spiro-ketal nitroxides as polymerization
inhibitors)
IT **826-36-8**
(ketalization by, of 1,3-propanediol; preparation of hindered spiro-ketal nitroxides as polymerization inhibitors)
IT **504-63-2**, 1,3-Propanediol
(ketalization by, of triacetone amine; preparation of hindered spiro-ketal nitroxides as polymerization inhibitors)
IT **482641-71-4 482641-73-6 482641-75-8 482641-77-0 482641-79-2 482641-80-5 482641-81-6**
(polymerization inhibitor; preparation of hindered spiro-ketal nitroxides as
polymerization inhibitors)
IT **482641-70-3P**
(preparation and inhibition by, of polymerization of acrylonitrile, vinyl acetate and acrylate; preparation of hindered spiro-ketal nitroxides as polymerization inhibitors)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 2 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:160840 HCAPLUS Full-text
DOCUMENT NUMBER: 142:261527
TITLE: Preparation of thienopyridines and furopyridines as protein kinase inhibitors
INVENTOR(S): Betschmann, Patrick; Burchat, Andrew F.; Calderwood, David J.; Curtin, Michael L.; Davidsen, Steven K.; Davis, Heather M.; Frey, Robin R.; Heyman, Howard R.; Hirst, Gavin C.; Hrnciar, Peter; Michaelides, Michael R.; Muckey, Melanie A.; Rafferty, Paul; Wada, Carol K.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 181 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent

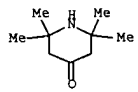
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2005043347	A1	20050224	US 2004-899168		20040726
PRIORITY APPLN. INFO.:			US 2003-489734P	P	20030724
			US 2004-567703P	P	20040503

OTHER SOURCE(S): MARPAT 142:261527
ED Entered STN: 25 Feb 2005
AB Title compds. I [wherein X = O, S; Z = C or N; R1 = H, alkenyl, alkoxyalkynyl, aryl, etc.; R2 = absence, H or alkyl; R3 = halo, (un)substituted (hetero)aryl or heterocyclyl, and therapeutically acceptable salts thereof] were prepared as protein kinase inhibitors. For example, urea II was synthesized via Pd-catalyzed coupling reaction of the corresponding 7-iodo-thienopyridine with [3-(dimethylamino)phenyl]boronic acid. Representative compds. I inhibited KDR and Lck at IC50 values of 0.002 μM to 50 μM and 0.03 μM to 50 μM, resp. Therefore, I and their pharmaceutical compns. are useful for the treatment of such as cancer, ocular and cardiovascular diseases.
IT **177-11-7**, 1,4-Dioxa-8-azaspiro[4.5]decane **826-36-8**
(preparation of thienopyridines and furopyridines as protein kinase inhibitors)
RN 177-11-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C07D491-02
ICS C07D498-02; A61K031-4743; A61K031-4741; A61K031-4745
INCL 514301000; 514302000; 546114000; 546115000
CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
IT 51-45-6, 2-(1H-Imidazol-4-yl)ethylamine, reactions 56-82-6, 2,3-Dihydroxypropanal 59-48-3, 1,3-Dihydroindol-2-one 60-34-4, Methylhydrazine 61-54-1, 2-(1H-Indol-3-yl)ethanamine 62-53-3, Aniline, reactions 62-55-5, Thiacetamide 67-64-1, 2-Propanone, reactions 74-89-5, Methylamine, reactions 78-84-2,

2-Methylpropionaldehyde 78-96-6, 1-Aminopropan-2-ol 86-84-0, 1-Isocyanatonaphthalene 90-04-0, o-Anisidine 91-22-5, Quinoline, reactions 92-54-6, 1-Phenylpiperazine 95-54-5, 1,2-Benzenediamine, reactions 96-50-4, Thiazol-2-ylamine 98-09-9, Benzenesulfonyl chloride 98-80-6, Phenylboronic acid 99-98-9, N,N-Dimethyl-1,4-benzenediamine 100-36-7, N,N-Diethyl-1,2-ethanediamine 103-71-9, Isocyanatobenzene, reactions 103-76-4, 2-(1-Piperazinyl)ethanol 104-78-9, N,N-Diethyl-1,3-propanediamine 104-79-0, [[2-(Diethylamino)ethyl](methyl)]amine 106-40-1, 4-Bromoaniline 106-96-7, Propargyl bromide 107-13-1, Acrylonitrile, reactions 107-19-7, 2-Propyn-1-ol 107-95-9, (2-Carboxyethyl)amine 108-00-9, N,N-Dimethyl-1,2-ethanediamine 108-15-6 108-18-9, Diisopropylamine 108-44-1, 3-Methylaniline, reactions 108-94-1, Cyclohexanone, reactions 109-01-3, 1-Methylpiperazine 109-55-7, N,N-Dimethyl-1,3-propanediamine 109-85-3, 2-Methoxyethylamine 109-89-7, Diethylamine, reactions 109-90-0, Isocyanatoethane 110-73-6, 2-(Ethylamino)ethanol 110-76-9, 2-Ethoxyethylamine 110-85-0, Piperazine, reactions 110-87-2 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 115-19-5, 2-Methyl-3-butyn-2-ol 121-05-1, N,N-Diisopropyl-1,2-ethanediamine 123-00-2, 3-(4-Morpholinyl)-1-propanamine 123-75-1, Pyrrolidine, reactions 124-40-3, N,N-Dimethylamine, reactions 140-88-5, Ethyl acrylate 141-32-2, Butyl acrylate 141-43-5, 2-Aminoethanol, reactions 141-86-6, 2,6-Pyridinediamine 142-25-6, N,N,N'-Trimethyl-1,2-ethanediamine 156-87-6, 3-Amino-1-propanol **177-11-7**, 1,4-Dioxa-8-azaspiro[4.5]decane 298-12-4, (Oxo)acetic acid 327-78-6 329-01-1, 1-Isocyanato-3-trifluoromethylbenzene 329-89-5, 6-Aminonicotinamide 367-24-8, 4-Bromo-2-fluoroaniline 394-41-2, 3-Fluoro-4-nitrophenol 404-71-7 462-08-8, 3-Pyridinamine 498-94-2, 4-Piperidinecarboxylic acid 501-53-1, Benzyl chloroformate 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 506-59-2, Dimethylamine hydrochloride 534-03-2 536-74-3, Ethynylbenzene 540-51-2, 2-Bromoethanol 555-57-7 583-75-5 591-54-8, Pyrimidin-4-ylamine 593-51-1, Methylamine hydrochloride 598-41-4, Glycinamide 614-68-6, 1-Isocyanato-2-methylbenzene 616-30-8, 3-Amino-1,2-propanediol 616-34-2 617-89-0, (Furan-2-ylmethyl)amine 621-29-4, 1-Isocyanato-3-methylbenzene 621-30-7, 1-Isothiocyanato-3-methylbenzene 622-26-4, 2-(4-Piperidinyl)ethanol 622-58-2, 1-Isocyanato-4-methylbenzene 627-19-0, 1-Pentyne 627-41-8, 3-Methoxy-1-propyne 630-19-3, 2,2-Dimethyl-propionaldehyde 638-29-9, Pentanoyl chloride 644-42-8 656-65-5, 4-Bromo-3-fluoroaniline 683-57-8, 2-Bromoacetamide 688-49-3 693-11-8, 4-Dimethylaminobutyric acid 765-30-0, Cyclopropylamine 765-38-8, 2-Methylpyrrolidine **826-36-8** 870-24-6, 2-Chloroethylamine hydrochloride 877-96-3 924-73-2, Ethyl β-alaninate 927-74-2, 3-Butyn-1-ol 929-06-6, 2-(2-Aminoethoxy)ethanol 1008-91-9, 1-(Pyridin-4-yl)piperazine 1013-88-3, Benzophenone imine 1072-67-9, (5-Methylisoxazol-3-yl)amine 1072-72-6 1074-82-4, Potassium phthalimide 1075-34-9 1118-68-9, Dimethylaminoacetic acid 1122-72-1, 6-Methyl-2-pyridinecarboxaldehyde 1195-45-5 1445-73-4 1548-13-6 1591-97-5 1632-83-3, 1-Methyl-1H-benzimidazole 1663-39-4, tert-Butyl acrylate 1664-39-7 1668-10-6, Glycinamide hydrochloride 1679-18-1, 4-Chlorophenylboronic acid 1692-15-5, (4-Pyridyl)boronic acid 1692-25-7, (3-Pyridyl)boronic acid 1711-06-4, 3-Methylbenzoyl chloride 1750-42-1, Isoxazol-3-ylamine 1761-61-1, 5-Bromo-2-hydroxybenzaldehyde 1765-93-1, 4-Fluorophenylboronic acid 1774-47-6, Trimethylsulfoxonium iodide 1804-94-0, 2-(Pyrrolidin-1-yl)acetamide 1820-80-0, 1H-Pyrazol-3-amine 1899-93-0, 3-Methylbenzenesulfonyl chloride 1904-31-0,

(1-Methyl-1H-pyrazol-3-yl)amine 1945-84-2, 2-Ethynylpyridine 1985-12-2, 1-Bromo-4-isothiocyanatobenzene 2038-03-1, 2-(4-Morpholinyl)ethanamine 2048-57-9, 2-Isocyanatothiophene 2243-54-1, 2-Isocyanatonaphthalene 2285-12-3, 1-Isocyanato-2-(trifluoromethyl)benzene 2450-71-7, Propargylamine 2510-22-7, 4-Ethynylpyridine 2510-23-8, 3-Ethynylpyridine 2680-03-7, N,N-Dimethylacrylamide 2706-56-1, 2-(2-Pyridinyl)ethanamine 2909-38-8 2978-58-7, 1,1-Dimethyl-2-propynylamine 3034-50-2, 1H-Imidazole-4-carboxaldehyde 3173-53-3, Isocyanatocyclohexane 3197-06-6 3234-64-8, 1,1-Diethylpropargylamine 3320-87-4 3367-95-1, N,N-Diethylnipecotamide 3528-58-3, (2-Ethyl-2H-pyrazol-3-yl)amine 3529-08-6, 1-Piperidinepropanamine 3529-10-0, N,N-Dimethyl-1,4-butanediamine 3612-18-8 3644-18-6 3685-25-4, trans-4-Carboxycyclohexylamine 3731-51-9, 1-(2-Pyridinyl)methanamine 3731-52-0, 1-(3-Pyridinyl)methanamine 3731-53-1, 1-(4-Pyridinyl)methanamine 4079-68-9 4138-26-5, Nipecotamide 4244-84-2 4318-37-0, 1-Methyl-1,4-diazepane 4318-42-7, 1-Isopropylpiperazine 4543-96-8, N,N,N'-Trimethyl-1,3-propanediamine 4572-03-6, 3-(4-Methyl-1-piperazinyl)-1-propanamine 4606-65-9, 3-Piperidinemethanol 4637-24-5 4746-97-8, 1,4-Dioxaspiro[4.5]decan-8-one 4747-71-1, Isocyanatocyclopentane 4753-75-7 4795-29-3, [(Tetrahydrofuran-2-yl)methyl]amine 4892-89-1, 4-[2-(1-Piperazinyl)ethyl]morpholine 4897-50-1, 4-(Piperidino)piperidine 4923-87-9, 5-Bromobenzo[b]thiophene 5036-48-6, 3-(1H-Imidazol-1-yl)-1-propanamine 5049-61-6, Pyrazin-2-ylamine 5122-94-1, 1,1'-Biphenyl-4-ylboronic acid 5221-62-5 5308-25-8, 1-Ethylpiperazine 5332-25-2, 6-Bromoquinoline 5355-68-0, 1-Isopropyl-4-piperidinone 5382-16-1, 4-Piperidinol 5390-04-5, 4-Pentyn-1-ol 5467-74-3, 4-Bromophenylboronic acid 5625-67-2, 2-Piperazinone 5625-98-9, 2-(Morpholin-4-yl)acetamide 5651-88-7 5680-79-5 5699-41-2, (4-(Acetylamino)butyl)amine 5720-05-8, 4-Methylphenylboronic acid 5720-07-0, 4-Methoxyphenylboronic acid 5799-76-8, 4-Prop-2-ynylmorpholine 5815-70-3, 1-Piperazinepropanamide 5959-36-4, Ethyl 4-aminobutanoate 6027-91-4 6089-09-4, 4-Pentynoic acid 6097-08-1 6165-68-0, (2-Thienyl)boronic acid 6165-69-1, (3-Thienyl)boronic acid 6238-14-8, 1-Azabicyclo[2.2.2]octan-3-amine 6241-30-1 6281-42-1, 1-(2-Aminoethyl)-2-imidazolidinone 6290-05-7, Diethyl iminodiacetate 6300-04-5, 3-Dimethylaminopropanoic acid 6320-96-3, 3-Bromopropionamide 6323-79-1 6456-74-2, tert-Butyl glycinate 6482-24-2, 1-Bromo-2-methoxyethane 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 6783-05-7, (E)-2-Phenylethenylboronic acid 6789-94-2, (1-Ethylpiperidin-3-yl)amine 6850-65-3, 4-Aminocyclohexanol 6937-16-2, Ethyl 4-aminobutyrate hydrochloride 7154-73-6, 2-(1-Pyrrolidinyl)ethanamine 7209-11-2 7223-38-3, N,N-Dimethyl-N-(2-propynyl)amine 7223-50-9, N-Propargylphthalimide 7409-48-5, 2-Diethylaminoacetamide 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidinone 7693-46-1, 4-Nitrophenyl chloroformate 10075-52-2, 5-Bromo-1-methyl-1H-indole 10160-87-9, 3,3-Diethoxy-1-propyne 10365-98-7, 3-Methoxyphenylboronic acid 10400-19-8, Nicotinoyl chloride 13010-19-0, 3-Chloropropyl isocyanate 13035-19-3, 4-Piperidinamine 13220-27-4, (1-Methylpyrrolidin-3-yl)amine 13258-63-4, 2-(4-Pyridinyl)ethanamine 13291-18-4, Isopropenylmagnesium bromide 13325-10-5, 4-Aminobutan-1-ol 13331-23-2, (2-Furyl)boronic acid 13360-57-1, Dimethylsulfamoyl chloride 13484-40-7, 1-(2-Methoxyethyl)piperazine 13552-21-1, 1-Aminobutan-2-ol 13610-02-1, (2-Propynyloxy)benzene 13737-05-8, Pyridyl-2-trimethylstannane 13889-98-0, 1-Acetylpiperazine 13910-79-7, (m-Methylphenyl)acetyl chloride

(preparation of thienopyridines and furopyridines as protein kinase inhibitors)

L63 ANSWER 3 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:817862 HCAPLUS Full-text
DOCUMENT NUMBER: 141:314162
TITLE: Improved process for the oxidation of secondary amines into the corresponding nitroxides with peracids in the presence of base
INVENTOR(S): Nesvadba, Peter; Bugnon, Lucienne; Von Bueren, Martin
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004085397	A1	20041007	WO 2004-EP50315	20040317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1606259	A1	20051221	EP 2004-741428	20040317
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2006521329	T	20060921	JP 2006-505470	20040317
US 2006229452	A1	20061012	US 2005-549526	20050919

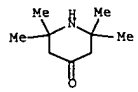
PRIORITY APPLN. INFO.: EP 2003-100790 A 20030327
WO 2004-EP50315 W 20040317

OTHER SOURCE(S): CASREACT 141:314162; MARPAT 141:314162
ED Entered STN: 07 Oct 2004
AB The invention is directed to an improved process for the preparation of secondary nitroxide radicals from their corresponding secondary amines by oxidation with an organic peroxide by adding to a reaction vessel the secondary amine, organic solvent and base in the form of a solid together with water or as an aqueous slurry; dosing a peracid under stirring to the reaction mixture; and isolating the organic phase. The invention provides an efficient and low cost process by eliminating large volume of alkali solns., absence of two dosing units and pH measuring. Thus, dropwise addition of peracetic acid over 50 min to a stirred mixture containing CaCO3, H2O, toluene, and 2,6-diethyl-2,3,6-trimethyl-4-piperidinone at 20-30°, followed by 150 min stirring gave nitroxide I.
IT **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidinone
768395-47-7
(amine starting material; improved process for the oxidation of

secondary amines into the corresponding nitroxides with peracids in the presence of base)

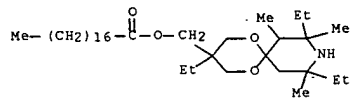
RN 826-36-8 HCAPLUS

CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 768395-47-7 HCAPLUS

CN Octadecanoic acid, (3,8,10-triethyl-7,8,10-trimethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-yl)methyl ester (9CI) (CA INDEX NAME)

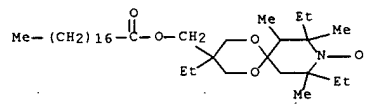


IT **437744-34-8P**

(nitroxide product; improved process for the oxidation of secondary amines into the corresponding nitroxides with peracids in the presence of base)

RN 437744-34-8 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3,8,10-triethyl-7,8,10-trimethyl-3-[[(1-oxooctadecyl)oxy]methyl]- (9CI) (CA INDEX NAME)



IC ICM C07D211-94

ICS C07C291-04; C07B043-00; C07B033-00

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 45

IT **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidinone 61682-93-7, 2,6-Diethyl-2,3,6-trimethyl-4-piperidinone **768395-47-7**

(amine starting material; improved process for the oxidation of secondary amines into the corresponding nitroxides with peracids in the presence of base)

IT 2896-70-0P, 2,2,6,6-Tetramethyl-4-piperidinone-1-oxyl 51210-48-1P **437744-34-8P**

(nitroxide product; improved process for the oxidation of secondary

amines into the corresponding nitroxides with peracids in the presence of base)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 4 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:753177 HCAPLUS Full-text

DOCUMENT NUMBER: 141:260733

TITLE: Preparation of piperidone ketals by condensing **alcohols** with piperidones in the presence polyphosphoric acid.

INVENTOR(S): Weerawarna, S. Ananda; Jewell, Richard A.

PATENT ASSIGNEE(S): Weyerhaeuser Company, USA

SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1457491	A1	20040915	EP 2004-251389	20040310
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
US 2004192920	A1	20040930	US 2003-390354	20030314
US 6852860	B2	20050208		
CA 2458736	A1	20040914	CA 2004-2458736	20040225
JP 2004307478	A	20041104	JP 2004-72188	20040315
PRIORITY APPLN. INFO.:			US 2003-390354 A	20030314

OTHER SOURCE(S): CASREACT 141:260733; MARPAT 141:260733

ED Entered STN: 16 Sep 2004

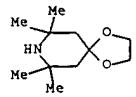
AB A method for making piperidone ketals comprises condensing a suitable **alc.** with a piperidone in the presence of polyphosphoric acid. Thus, ethylene glycol, 2,2,6,6-tetramethyl-4-piperidone, and polyphosphoric acid were heated together at 65° for 6 h with stirring to give 88% 2,2,6,6-tetramethyl-4-piperidone ethylene ketal.

IT **36793-27-8P**, 2,2,6,6-Tetramethyl-4-piperidone ethylene ketal

(preparation of piperidone ketals by condensing **alcs.** with piperidones in the presence polyphosphoric acid)

RN 36793-27-8 HCAPLUS

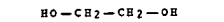
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



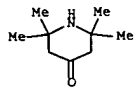
IT **107-21-1**, Ethylene glycol, reactions **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidone

(preparation of piperidone ketals by condensing **alcs.** with piperidones in the presence polyphosphoric acid)

RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



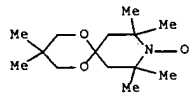
IC ICM C07D491-10
ICS C07D317-00; C07D221-00
CC 28-5 (Heterocyclic Compounds (More Than One Hetero Atom))
IT Ketalization
Ketalization catalysts
(preparation of piperidone ketals by condensing **alcs.** with piperidones in the presence polyphosphoric acid)
IT Polyphosphoric acids
(preparation of piperidone ketals by condensing **alcs.** with piperidones in the presence polyphosphoric acid)
IT Ketals
(preparation of piperidone ketals by condensing **alcs.** with piperidones in the presence polyphosphoric acid)
IT **Alcohols**, reactions
Glycols, reactions
(preparation of piperidone ketals by condensing **alcs.** with piperidones in the presence polyphosphoric acid)
IT **36793-27-8P**, 2,2,6,6-Tetramethyl-4-piperidone ethylene ketal
(preparation of piperidone ketals by condensing **alcs.** with piperidones in the presence polyphosphoric acid)
IT **107-21-1**, Ethylene glycol, reactions **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidone
(preparation of piperidone ketals by condensing **alcs.** with piperidones in the presence polyphosphoric acid)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 5 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:793696 HCAPLUS Full-text
DOCUMENT NUMBER: 139:292944
TITLE: Synthetic resin composition containing piperidine-added polymeric stabilizer
INVENTOR(S): Negishi, Yoshinori; Tobita, Etsuo
PATENT ASSIGNEE(S): Asahi Denka Kogyo K. K., Japan

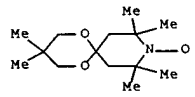
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003286412	A	20031010	JP 2002-93049	20020328
PRIORITY APPLN. INFO.:			JP 2002-93049	20020328

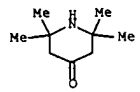
OTHER SOURCE(S): MARPAT 139:292944
ED Entered STN: 10 Oct 2003
AB The composition contains a synthetic resin and a stabilizer obtained by addition reaction of a piperidine ketal I (R1 = C1-20 polyalc. residue after removal of 2 OH) and a polymer having mol. weight ≥300, which is useful for an agricultural film showing retention of weatherability in processing at high temperature, under fumigation by S, or under acid rain. Thus, 100 parts LDPE (Hiwax NL 100) and 10.2 parts N-oxyl-2,2,6,6-tetramethylpiperidin-4-one 2,2-dimethyl-1,3-propanediol ketal were reacted in the presence of α,α'-bis(tert-butylperoxy)diisopropylbenzene to give the polymeric stabilizer, 2.5 parts of which was mixed with LDPE (YK 30) 100, tetrakis[methylene-3- [3,5-di(tert-butyl)-4-hydroxyphenyl]propionate]methane 0.05, and tris[2,4-di(tert-butyl)phenyl] phosphite 0.5 part and extruded to give a test piece. Then, the test piece was fumigated by S for 1 h and subjected to sunshine weather-o-meter to show carbonyl index 0.02 after 120 h and 0.75 after 1200 h.
IT **98254-32-1DP**, reaction product with polymer
(synthetic resin composition containing piperidine-added polymeric stabilizer for agricultural film)
RN 98254-32-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3,3,8,8,10,10-hexamethyl- (9CI) (CA INDEX NAME)



IT **98254-32-1P**
(synthetic resin composition containing piperidine-added polymeric stabilizer from)
RN 98254-32-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3,3,8,8,10,10-hexamethyl- (9CI) (CA INDEX NAME)



IT **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidone
(synthetic resin composition containing piperidine-added polymeric stabilizer from)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



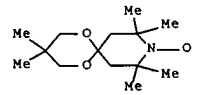
IC ICM C08L101-00
ICS C08F008-30; C08L023-36; C09K015-30
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 39
IT 9002-88-4DP, Hiwax NL 100, reaction product with piperidine
98254-32-1DP, reaction product with polymer
(synthetic resin composition containing piperidine-added polymeric stabilizer for agricultural film)
IT **98254-32-1P**
(synthetic resin composition containing piperidine-added polymeric stabilizer from)
IT 126-30-7, 2,2-Dimethyl-1,3-propanediol **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidone
(synthetic resin composition containing piperidine-added polymeric stabilizer from)

L63 ANSWER 6 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:150421 HCAPLUS Full-text
DOCUMENT NUMBER: 138:172129
TITLE: Making carboxylated cellulose fibers and paper products
INVENTOR(S): Jewell, Richard A.; Komen, Joseph Lincoln; Su, Bing; Weerawarna, S. Ananda; Li, Yong
PATENT ASSIGNEE(S): Weyerhaeuser Company, USA
SOURCE: U.S., 23 pp., Cont.-in-part of U.S. 6,379,494.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

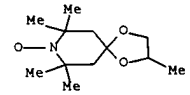
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6524348	B1	20030225	US 2000-641276	20000817
US 6379494	B1	20020430	US 1999-418909	19991015
PRIORITY APPLN. INFO.:			US 1999-272137	B2 19990319
			US 1999-418909	A2 19991015

OTHER SOURCE(S): MARPAT 138:172129
ED Entered STN: 27 Feb 2003

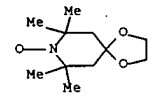
AB The title method of making carboxylated cellulose fibers whose fiber strength and d.p. is not significantly sacrificed comprises oxidation and stabilized stages. The title method involves the use of cyclic nitroxide free radical compds. as a primary oxidant and a hypohalite salt as a secondary oxidant in an aqueous environment. Preferably the oxidized cellulose is then stabilized against D.P. loss in alkaline environments and color reversion with a reducing agent such as Na borohydride. Alternatively it may be treated with an tertiary oxidant such as Na chlorite. The method results in a high percentage of carboxyl groups located at the fiber surface. The product is especially useful as a papermaking fiber where it contributes strength and has a higher attraction for cationic additives. The product is also useful as an additive to recycled fiber to increase strength. The method can be used to improve properties of either virgin or recycled fiber. It does not require high α-cellulose fiber but is suitable for regular market pulps.
IT **98254-32-1 154186-17-1**
(cellulose fiber treated with; making carboxylated cellulose fibers for papermaking)
RN 98254-32-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3,3,8,8,10,10-hexamethyl- (9CI) (CA INDEX NAME)



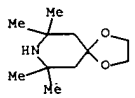
RN 154186-17-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]dec-8-yloxy, 2,7,7,9,9-pentamethyl- (9CI) (CA INDEX NAME)



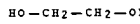
IT **150980-92-0P**
(cellulose fiber treated with; preparation of nitroxide free radical for making carboxylated cellulose fibers for papermaking)
RN 150980-92-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]dec-8-yloxy, 7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



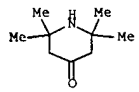
IT **36793-27-8P**
(preparation of nitroxide free radical for making carboxylated cellulose fibers for papermaking)
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



IT **107-21-1**, Ethylene glycol, reactions **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidone
(preparation of nitroxide free radical for making carboxylated cellulose fibers for papermaking)
RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



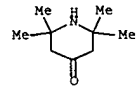
IC ICM D06M023-00
ICS D21C009-00; D21H011-20
INCL 008116100; 008181000; 162009000
CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)
IT 2226-96-2, 4-Hydroxy-TEMPO 2564-83-2, TEMPO 2564-87-6 2896-70-0, 4-Oxo-TEMPO 3229-53-6 3264-93-5 14691-88-4, 4-Amino-TEMPO 14691-89-5 31645-22-4 95407-69-5, 4-Methoxy-TEMPO **98254-32-1 154186-17-1** 184160-78-9
(cellulose fiber treated with; making carboxylated cellulose fibers for papermaking)
IT **150980-92-0P**
(cellulose fiber treated with; preparation of nitroxide free radical for making carboxylated cellulose fibers for papermaking)

IT **36793-27-8P**
(preparation of nitroxide free radical for making carboxylated cellulose fibers for papermaking)
IT 104-15-4, p-Toluenesulfonic acid, reactions **107-21-1**, Ethylene glycol, reactions **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidone
(preparation of nitroxide free radical for making carboxylated cellulose fibers for papermaking)
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 7 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:676492 HCAPLUS Full-text
DOCUMENT NUMBER: 137:169423
TITLE: Preparation of 2,2,6,6-tetramethylpiperidine N-oxide and 4-substituted derivatives
INVENTOR(S): Fumagalli, Eugenio; Magnoni, Massimo
PATENT ASSIGNEE(S): 3V Sigma S.p.A., Italy
SOURCE: Ital. Appl., 20 pp.
CODEN: ITXXCZ
DOCUMENT TYPE: Patent
LANGUAGE: Italian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

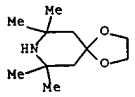
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT 2000MI1052	A1	20011112	IT 2000-MI1052	20000512
IT 1318515	B1	20030827		
PRIORITY APPLN. INFO.:			IT 2000-MI1052	20000512

OTHER SOURCE(S): CASREACT 137:169423; MARPAT 137:169423
ED Entered STN: 09 Sep 2002
AB N-oxidation of 2,2,6,6-tetramethylpiperidine and 4-substituted derivs. was carried out using H2O2 in the presence of phosphonic acid derivs. Y(PO3HnM2-n)m (Y is C1-8 alkyl or alkylene; n = 0-2; m = 1-6). Thus, a 35% aqueous solution of H2O2 (102 g) was added over 2 h to an aqueous solution of 94.4 g 2,2,6,6-tetramethyl-4-hydroxypiperidine and 0.25 g diethylenetriaminepentamethylphosphonic acid hepta-sodium salt kept at 70°C. The mixture was stirred for 9 h at this temperature to yield 103.4 g the N-oxide.
IT **826-36-8 36793-27-8 55490-49-8**
(preparation of tetramethylpiperidine N-oxides)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

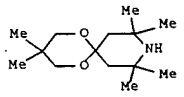


RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA

INDEX NAME)



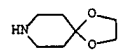
RN 55490-49-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,8,10,10-hexamethyl- (9CI) (CA INDEX NAME)



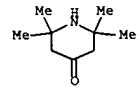
IC ICM C07D
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
IT 768-66-1 **826-36-8** 1463-00-9 2403-88-5 26275-85-4
36793-27-8 52829-07-9 **55490-49-8** 67778-07-8
67845-89-0 71981-32-3 118985-47-0 128534-75-8 154186-07-9
154186-08-0 154186-16-0 448298-60-0
(preparation of tetramethylpiperidine N-oxides)

L63 ANSWER 8 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:357930 HCAPLUS Full-text
DOCUMENT NUMBER: 137:79635
TITLE: Physical Stabilization or Chemical Degradation of Concentrated Solutions of Polyaniline Emeraldine Base Containing Secondary Amine Additives
AUTHOR(S): Yang, Dali; Zuccarello, Guido; Mattes, Benjamin R.
CORPORATE SOURCE: Santa Fe Science and Technology Inc., Santa Fe, NM, 87505, USA
SOURCE: Macromolecules (2002), 35(13), 5304-5313
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 14 May 2002
AB Thirty-nine secondary amines were systematically investigated as additives in concentrated emeraldine base (EB)/NMP solns. for gelation and degradation When both the width (defined as the longest distance between 2 hydrogens in the plane perpendicular to the NH bond of the amine) and depth (defined as the longest distance between 2 atoms in a plane perpendicular to the width) of the amines are <4.53 Å and their pKa is >7.7, the amines significantly extend the gelation times of 20 mass % EB/NMP solns. for more than 12 h. However, some of these amines also significantly degrade the polymer. Amines with small width and depth and strong basicity, such as azetidine and pyrrolidine, can significantly destroy the EB structures. This was evidenced by order-of-

magnitude decreases in doped film conductivity, by significantly changed UV-vis spectra, and by significantly reduced mol. wts. of the aged EB solns. as measured by gel permeation chromatog. (GPC). However, when both the width and depth of amines are >4.53 Å, these amines neither prolong gelation time nor appreciably degrade EB.
IT **177-11-7**, 1,4-Dioxa-8-azaspiro[4.5]decane **826-36-8**, 2,2,6,6-Tetramethylpiperidin-4-one
(phys. stabilization or chemical degradation of concentrated solns. of polyaniline emeraldine base containing secondary amine additives)
RN 177-11-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

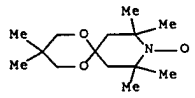


CC 37-6 (Plastics Manufacture and Processing)
IT 75-55-8, 2-Methylaziridine 91-21-4, 1,2,3,4-Tetrahydroisoquinoline 101-83-7, Dicyclohexylamine 103-49-1, Dibenzylamine 108-18-9, Diisopropylamine 109-05-7, 2-Methylpiperidine 109-89-7, Diethylamine, properties 109-96-6, 3-Pyrroline 110-89-4, Piperidine, properties 110-91-8, Morpholine, properties 111-49-9 111-92-2, Dibutylamine 123-75-1, Pyrrolidine, properties 123-90-0, Thiomorpholine 141-91-3, 2,6-Dimethylmorpholine 142-84-7, Dipropylamine **177-11-7**, 1,4-Dioxa-8-azaspiro[4.5]decane 496-15-1, Indoline 503-29-7, Azetidine 504-03-0, 2,6-Dimethylpiperidine 534-26-9, 2-Methylimidazoline 626-58-4, 4-Methylpiperidine 635-46-1, 1,2,3,4-Tetrahydroquinoline 694-05-3, 1,2,3,6-Tetrahydropyridine 768-66-1, 2,2,6,6-Tetramethylpiperidine **826-36-8**, 2,2,6,6-Tetramethylpiperidin-4-one 1121-92-2 1126-09-6, Ethyl isonipecotate 2051-28-7, Decahydroquinoline 3367-95-1 5382-16-1, 4-Hydroxypiperidine 13889-98-0, 1-Acetylpiperazine 14321-27-8, N-Ethylbenzylamine 16369-21-4, 2-(Propylamino)ethanol 31152-37-1, Thiazoline 35794-11-7, 3,5-Dimethylpiperidine 40499-83-0, 3-Hydroxypyrrolidine 59480-92-1, 2,5-Dimethyl-3-pyrroline 68832-13-3, R-(-)-Pyrrolidine-2-methanol
(phys. stabilization or chemical degradation of concentrated solns. of polyaniline emeraldine base containing secondary amine additives)
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

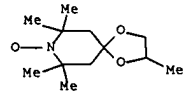
L63 ANSWER 9 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:300943 HCAPLUS Full-text
DOCUMENT NUMBER: 134:312682
TITLE: Method of making carboxylated cellulose fibers and products
INVENTOR(S): Jewell, Richard A.; Komen, Joseph Lincoln; Su, Bing; Weerawarna, S. Ananda; Li, Yong
PATENT ASSIGNEE(S): Weyerhaeuser Company, USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001029309	A1	20010426	WO 2000-US27837	20001006
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6379494	B1	20020430	US 1999-418909	19991015
CA 2384701	A1	20010426	CA 2000-2384701	20001006
CA 2384701	C	20050329		
EP 1238142	A1	20020911	EP 2000-970682	20001006
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003512540	T	20030402	JP 2001-532283	20001006
PRIORITY APPLN. INFO.:			US 1999-418909 A	19991015
			US 1999-272137 A2	19990319
			WO 2000-US27837 W	20001006

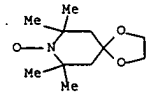
OTHER SOURCE(S): MARPAT 134:312682
ED Entered STN: 27 Apr 2001
AB A method of making highly carboxylated cellulose fibers whose fiber strength and d.p. is not significantly sacrificed comprises (1) oxidizing the cellulose fiber (kraft pulp) with a cyclic nitroxide free radical compound as a primary oxidant and a hypohalite salt as a secondary oxidant under aqueous alkaline conditions; and (2) treating the oxidized cellulose against d.p. loss in aqueous suspension with a stabilizing agent selected from the group consisting of reducing agent and tertiary oxidizing agent. The product is especially useful as a papermaking fiber where it contributes strength and has a higher attraction for cationic additives, and it is also useful as an additive to recycled fiber to increase strength.
IT **98254-32-1 154186-17-1**
(cellulose fiber treated with; method of making carboxylated cellulose fibers and products for papermaking)
RN 98254-32-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undec-9-yloxy, 3,3,8,8,10,10-hexamethyl- (9CI) (CA INDEX NAME)



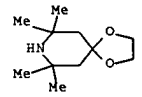
RN 154186-17-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]dec-8-yloxy, 2,7,7,9,9-pentamethyl- (9CI) (CA INDEX NAME)



IT **150980-92-0P**
(cellulose fiber treated with; preparation of nitroxide free radical for making carboxylated cellulose fibers and products for papermaking)
RN 150980-92-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]dec-8-yloxy, 7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



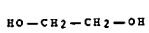
IT **36793-27-8P**
(preparation of nitroxide free radical for making carboxylated cellulose fibers and products for papermaking)
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



IT **107-21-1**, Ethylene glycol, reactions **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidone
(preparation of nitroxide free radical for making carboxylated cellulose fibers and products for papermaking)

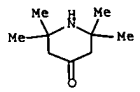
RN 107-21-1 HCAPLUS

CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



RN 826-36-8 HCAPLUS

CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM D21C009-00
ICS D21H011-20; C08B015-04

CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)

IT 2226-96-2, 4-Hydroxy-TEMPO 2564-83-2, TEMPO 2564-87-6 2896-70-0, 4-Oxo-TEMPO 3229-53-6 3264-93-5 14691-88-4, 4-Amino-TEMPO 14691-89-5 31645-22-4 95407-69-5, 4-Methoxy-TEMPO **98254-32-1 154186-17-1** 184160-78-9
(cellulose fiber treated with; method of making carboxylated cellulose fibers and products for papermaking)

IT **150980-92-0P**
(cellulose fiber treated with; preparation of nitroxide free radical for making carboxylated cellulose fibers and products for papermaking)

IT **36793-27-8P**
(preparation of nitroxide free radical for making carboxylated cellulose fibers and products for papermaking)

IT 104-15-4, p-Toluenesulfonic acid, reactions **107-21-1**, Ethylene glycol, reactions **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidone
(preparation of nitroxide free radical for making carboxylated cellulose fibers and products for papermaking)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 10 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:111119 HCAPLUS Full-text

DOCUMENT NUMBER: 126:118599

TITLE: Silicones bearing sterically hindered cyclic amine groups for use as light and heat stabilizers for polymers

INVENTOR(S): Karrer, Philippe; Mignani, Gerard; Pontini, Bernard; Storet, Isabelle

PATENT ASSIGNEE(S): Rhone-Poulenc Chimie SA, Fr.

SOURCE: Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 748849	A1	19961218	EP 1996-420205	19960614
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
FR 2735481	A1	19961220	FR 1995-7445	19950616
FR 2735481	B1	19970822		
AU 9654541	A	19970102	AU 1996-54541	19960527
AU 698499	B2	19981029		
ZA 9604311	A	19961204	ZA 1996-4311	19960528
TW 518347	B	20030121	TW 1996-85106378	19960529
US 5792825	A	19980811	US 1996-661692	19960611
CA 2178996	A1	19961217	CA 1996-2178996	19960614
NO 9602534	A	19961217	NO 1996-2534	19960614
JP 09003197	A	19970107	JP 1996-174351	19960614
CN 1144803	A	19970312	CN 1996-102280	19960614
HU 9601651	A2	19970328	HU 1996-1651	19960614
BR 9601837	A	19980113	BR 1996-1837	19960614

PRIORITY APPLN. INFO.: FR 1995-7445 A 19950616

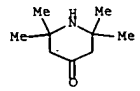
ED Entered STN: 17 Feb 1997

AB The title silicones, with specified structure, are prepared for use as heat and light stabilizers. Reaction of 1,2-benzenediol with allyl chloride in the presence of NaOH and CuCl2 in iso-Pr2O at 50° gave 60% 4-allyl-1,2-benzenediol, reaction of which (0.12 mol) with 0.12 mol triacetoneamine di-Me acetal [prepared in 100% yield from triacetoneamine and (MeO)2CH2] in refluxing PhMe containing PhSO3H gave 50% spiro compound I. The Pt-catalyzed reaction of 4.12 g Me hydrogen siloxane (mol. weight 1630, SiH content 868 mequiv./100 g) with 9.76 g I gave a 95% conversion (based on SiH groups) to a siloxane hindered amine derivative, the use of which in stabilization of polypropylene is exemplified.

IT **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidinone
(reaction with di-Me acetal)

RN 826-36-8 HCAPLUS

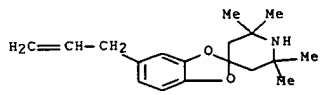
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



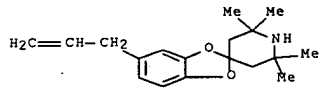
IT **186038-61-9P**
(silicones bearing sterically hindered cyclic amine groups for use as light and heat stabilizers for polymers)

RN 186038-61-9 HCAPLUS

CN Spiro[1,3-benzodioxole-2,4'-piperidine], 2',2',6',6'-tetramethyl-5-(2-propenyl)- (9CI) (CA INDEX NAME)



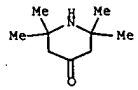
IT **186038-61-9DP**, reaction products with Me hydrogen siloxanes
(silicones bearing sterically hindered cyclic amine groups for use as light and heat stabilizers for polymers)
RN 186038-61-9 HCAPLUS
CN Spiro[1,3-benzodioxole-2,4'-piperidine], 2',2',6',6'-tetramethyl-5-(2-propenyl)- (9CI) (CA INDEX NAME)



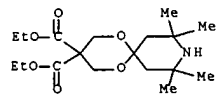
IC ICM C08L083-08
ICS C08G077-388
CC 37-6 (Plastics Manufacture and Processing)
IT **826-36-8**, 2,2,6,6-Tetramethyl-4-piperidinone
(reaction with di-Me acetal)
IT **186038-61-9P**
(silicones bearing sterically hindered cyclic amine groups for use as light and heat stabilizers for polymers)
IT **186038-61-9DP**, reaction products with Me hydrogen siloxanes
(silicones bearing sterically hindered cyclic amine groups for use as light and heat stabilizers for polymers)

L63 ANSWER 11 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:1002302 HCAPLUS Full-text
DOCUMENT NUMBER: 124:56778
TITLE: Functional derivatives of sterically hindered amines. Polyalkylpiperidine diesters
AUTHOR(S): Vass, Frantisek; Luston, Jozef
CORPORATE SOURCE: VASACHEM Co., Bratislava, 851 01, Swed.
SOURCE: Collection of Czechoslovak Chemical Communications (1995), 60(9), 1529-35
CODEN: CCCCAK; ISSN: 0010-0765
PUBLISHER: Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 23 Dec 1995
AB Several diesters of dicarboxylic acids with pendant polyalkylpiperidine structural units were prepared from α-bromo and α,α'-dibromo substituted aliphatic dicarboxylic acid diesters by a nucleophilic replacement reaction with 2,2,6,6-tetramethyl-4-hydroxypiperidine, 1,2,2,6,6-pentamethyl-4-

hydroxypiperidine, and 2,2,6,6-tetramethyl-4-aminopiperidine, by a nucleophilic addition of amino derivative to the α,β-unsatd. dicarboxylic acid diester and by an acid catalyzed condensation of 2,2,6,6-tetramethyl-4-oxopiperidine with di-Et bis(hydroxymethyl)malonate.
IT **826-36-8**, 2,2,6,6-Tetramethyl-4-oxopiperidine
(preparation of polyalkylpiperidine diesters as potential monomers for polymeric light stabilizers)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **110844-29-6P**
(preparation of polyalkylpiperidine diesters as potential monomers for polymeric light stabilizers)
RN 110844-29-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, diethyl ester (9CI) (CA INDEX NAME)



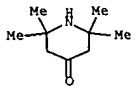
CC 35-2 (Chemistry of Synthetic High Polymers)
IT 685-87-0 **826-36-8**, 2,2,6,6-Tetramethyl-4-oxopiperidine
868-72-4 2403-88-5, 2,2,6,6-Tetramethyl-4-hydroxypiperidine
51575-86-1
(preparation of polyalkylpiperidine diesters as potential monomers for polymeric light stabilizers)
IT 105425-66-9P **110844-29-6P** 116920-42-4P 116920-44-6P
117724-88-6P 120604-32-2P 172103-13-8P
(preparation of polyalkylpiperidine diesters as potential monomers for polymeric light stabilizers)

L63 ANSWER 12 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:22245 HCAPLUS Full-text
DOCUMENT NUMBER: 118:22245
TITLE: Preparation of 1,5-dioxa-3,3-bis(2-propenyloxymethyl)-8,8,10,10-tetramethyl-9-azaspiro[5.5]undecane as a light stabilizer for polymers
INVENTOR(S): Luston, Jozef; Vass, Frantisek
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 4 pp.
CODEN: CZXXA9

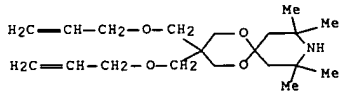
DOCUMENT TYPE: Patent
LANGUAGE: Slovak
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 272639	B1	19910212	CS 1989-221	19890112
PRIORITY APPLN. INFO.:			CS 1989-221	19890112

ED Entered STN: 24 Jan 1993
AB Title compound I, useful itself as a light stabilizer, and also able by polymerization or copolymn. to form high-mol. weight light stabilizers, was prepared A mixture of 2,2,6,6-tetramethyl-4-oxopiperidine, 4-MeC6H4SO3H (catalyst), and (HOCH2)2C(CH2OCH2CH:CH2)2 was refluxed in either C6H6 or PhMe with azeotropic distillation of formed H2O to give I quant. Impregnation of 100 parts polypropylene (II) in CH2Cl2 with 2,6-di-tert-butyl-4-methylphenol 0.1, Ca stearate 0.15, and I 0.1 weight parts with 190° workup, increased irradiation time to achieve carbonyl index 0.2 from 200 h (pure II) to 980 h.
IT **826-36-8**, 2,2,6,6-Tetramethyl-4-oxopiperidine
(cyclocondensation of, with bis(propenyloxymethyl)propanediol, in preparation of light stabilizer)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **144874-03-3P**
(preparation of, as light stabilizer)
RN 144874-03-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,8,10,10-tetramethyl-3,3-bis[(2-propenyloxy)methyl]- (9CI) (CA INDEX NAME)

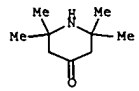


IC ICM C07D405-04
CC 28-11 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 37
IT **826-36-8**, 2,2,6,6-Tetramethyl-4-oxopiperidine
(cyclocondensation of, with bis(propenyloxymethyl)propanediol, in preparation of light stabilizer)
IT **144874-03-3P**
(preparation of, as light stabilizer)

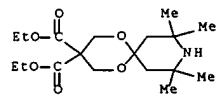
L63 ANSWER 13 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:207271 HCAPLUS Full-text
DOCUMENT NUMBER: 114:207271
TITLE: Preparation of 1,5-dioxa-3,3-bis(ethoxycarbonyl)-8,8,10,10-tetramethyl-9-azaspira[5,5]undecane as a copolymerizable light stabilizer
INVENTOR(S): Luston, Jozef; Vass, Frantisek
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 3 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Slovak
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 264997	B1	19890912	CS 1988-2670	19880420
PRIORITY APPLN. INFO.:			CS 1988-2670	19880420

ED Entered STN: 31 May 1991
AB The title compound (I) was prepared as a copolymerizable light stabilizer (no data) by ketalization of the parent 4-oxopiperidine derivative II with EtO2CC(CH2OH)2CO2Et (III) at reflux in an organic H2O azeotrope-forming solvent, e.g., C6H6, MePh, or xylenes, in the presence of an acid catalyst. Thus, a mixture of 6.21 g 2,2,6,6-tetramethyl-4-oxopiperidine and 8.37 g 4-MeC6H4SO3H.H2O in 80 mL C6H6 was boiled for 0.5 h to remove crystallization H2O, 8.81 g III was added, and the whole refluxed 14 h to give 13 g I.
IT **826-36-8**
(ketalization of, by bis(hydroxymethyl)malonate ester)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **110844-29-6P**
(preparation of, as copolymerizable light stabilizer)
RN 110844-29-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, diethyl ester (9CI) (CA INDEX NAME)

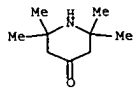


IC ICM C07D491-113
CC 28-11 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 37
IT **826-36-8**
(ketalization of, by bis(hydroxymethyl)malonate ester)
IT **110844-29-6P**
(preparation of, as copolymerizable light stabilizer)

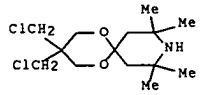
L63 ANSWER 14 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:516299 HCAPLUS Full-text
DOCUMENT NUMBER: 111:116299
TITLE: Manufacture of 3,3-bis(chloromethyl)-8,8,10,10-tetramethyl-9-aza-1,5-dioxaspiro[5.5]undecane as a light stabilizer for polymers
INVENTOR(S): Luston, Jozef; Vass, Frantisek; Smieskova, Edita
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 3 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Slovak
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 254696	B1	19880115	CS 1986-7370	19861013
PRIORITY APPLN. INFO.:			CS 1986-7370	19861013

OTHER SOURCE(S): CASREACT 111:116299
ED Entered STN: 01 Oct 1989
AB The title compound I is prepared in 97% yield by refluxing equimolar amts. of 2,2,6,6-tetramethyl-4-oxopiperidine, 4-MeC6H4SO3H, and (HOCH2)2C(CH2Cl)2 in C6H6 or xylene with removal of water. Polypropene containing I 0.2, 2,6-di-tert-butyl-4-methylphenol 0.1, and Ca stearate 0.15% was resistant to photodegrdn. for 1780 h, vs. 220 without stabilizers.
IT **826-36-8**, 2,2,6,6-Tetramethyl-4-oxopiperidine
(cyclocondensation of, with bis(chloromethyl)propanediol)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **122508-96-7P**
(preparation and light stabilizer activity in polymers)
RN 122508-96-7 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3-bis(chloromethyl)-8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C07D491-113
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 28
IT **826-36-8**, 2,2,6,6-Tetramethyl-4-oxopiperidine
(cyclocondensation of, with bis(chloromethyl)propanediol)
IT **122508-96-7P**
(preparation and light stabilizer activity in polymers)

L63 ANSWER 15 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:174446 HCAPLUS Full-text
DOCUMENT NUMBER: 110:174446
TITLE: Monomeric and oligomeric cyclic acetal light stabilizers for plastics
INVENTOR(S): Nelson, Richard Victor; Stephen, John Fergus
PATENT ASSIGNEE(S): ICI Americas, Inc., USA
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 291238	A2	19881117	EP 1988-304095	19880506
EP 291238	A3	19890920		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4804699	A	19890214	US 1987-50077	19870515
ZA 8803120	A	19890530	ZA 1988-3120	19880502
AU 8815825	A	19881117	AU 1988-15825	19880509
FI 8802231	A	19881116	FI 1988-2231	19880512
BR 8802307	A	19881213	BR 1988-2307	19880512
DK 8802655	A	19881116	DK 1988-2655	19880513
NO 8802097	A	19881116	NO 1988-2097	19880513
JP 01052780	A	19890228	JP 1988-119058	19880516
PRIORITY APPLN. INFO.:			US 1987-50077 A	19870515

OTHER SOURCE(S): CASREACT 110:174446; MARPAT 110:174446
ED Entered STN: 12 May 1989
AB Monomeric and oligomeric derivs. of the dialkyl esters of alkyl 1,5-dioxa-9-azaspiro[5.5]undecane-3,3-diacetic acid are light stabilizers for polyolefins. Refluxing 25 mmol 2,2,6,6- tetramethylpiperidin-4-one monohydrate with 25 mmol dibromoneopentyl glycol in 100 mL cyclohexane in the presence of p-MeC6H4SO3H for 6 h gave a dibromo acetal, adding KCN gave the corresponding dinitrile, and hydrolyzing, esterifying, and transesterifying with 2,2,6,6-tetramethylpiperidin-4-ol gave I. I, polyester derivs. of I with 2,2-dimethyl-1,3-propanediol, or polyamide derivative of I with 1,6-hexanediamine was added (0.25%) with 0.2% stearyl β-3,5-di-tert-butyl-4-hydroxyphenylpropionate to polypropylene and each of the above mixture

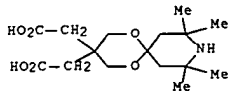
compression molded 6000 psi/188° to give films with light resistance 8-10 times that of polypropylene alone.

IT **120215-45-4P**

(light stabilizer, preparation of, for polyolefin)

RN 120215-45-4 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-diacetic acid, 8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)

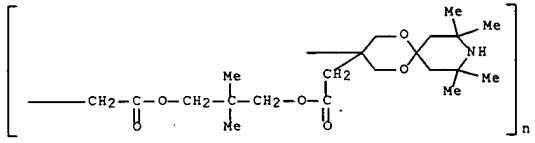


IT **120199-26-0P 120199-27-1P 120217-88-1P 120217-89-2P**

(oligomer, light stabilizer, preparation of, for polyolefin)

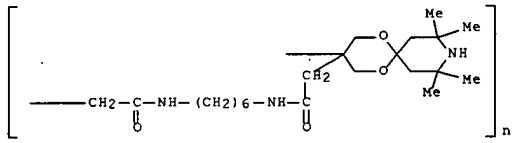
RN 120199-26-0 HCAPLUS

CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undecane-3-ylidene)(2-oxo-1,2-ethanediyl)oxy(2,2-dimethyl-1,3-propanediyl)oxy(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)



RN 120199-27-1 HCAPLUS

CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undecane-3-ylidene)(2-oxo-1,2-ethanediyl)imino-1,6-hexanediylimino(1-oxo-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

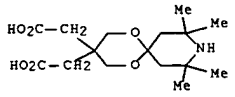


RN 120217-88-1 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-diacetic acid, 8,8,10,10-tetramethyl-, polymer with 2,2-dimethyl-1,3-propanediol (9CI) (CA INDEX NAME)

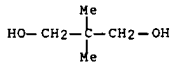
CM 1

CRN 120215-45-4
CMF C16 H27 N O6



CM 2

CRN 126-30-7
CMF C5 H12 O2

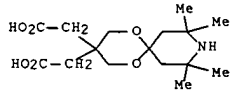


RN 120217-89-2 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-diacetic acid, 8,8,10,10-tetramethyl-, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

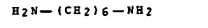
CM 1

CRN 120215-45-4
CMF C16 H27 N O6

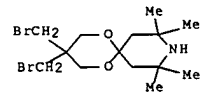


CM 2

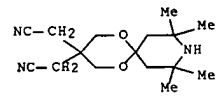
CRN 124-09-4
CMF C6 H16 N2



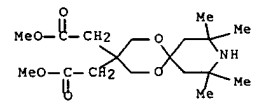
IT **105683-18-9P**
(preparation and cyanation of)
RN 105683-18-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3-bis(bromomethyl)-8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



IT **120215-46-5P**
(preparation and hydrolysis and esterification of)
RN 120215-46-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-diacetonitrile, 8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)

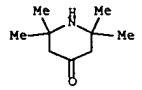


IT **120215-47-6P**
(preparation and transesterification of)
RN 120215-47-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-diacetic acid, 8,8,10,10-tetramethyl-, dimethyl ester (9CI) (CA INDEX NAME)



IT **826-36-8**
(reaction of, with dibromoneopentyl glycol)
RN 826-36-8 HCAPLUS

CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C07D519-00
ICS C07D491-113; C08K005-34
ICI C07D519-00, C07D491-00
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 28
IT **120215-45-4P**
(light stabilizer, preparation of, for polyolefin)
IT **120199-26-0P 120199-27-1P 120217-88-1P 120217-89-2P**
(oligomer, light stabilizer, preparation of, for polyolefin)
IT **105683-18-9P**
(preparation and cyanation of)
IT **120215-46-5P**
(preparation and hydrolysis and esterification of)
IT **120215-47-6P**
(preparation and transesterification of)
IT **826-36-8**
(reaction of, with dibromoneopentyl glycol)

L63 ANSWER 16 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:577203 HCAPLUS Full-text
DOCUMENT NUMBER: 107:177203
TITLE: Malonate compounds useful as light stabilizers for plastics
INVENTOR(S): Nelson, Richard Victor; Stephen, John Fergus
PATENT ASSIGNEE(S): ICI Americas, Inc., USA
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 222512	A2	19870520	EP 1986-307878	19861010
EP 222512	A3	19881207		
EP 222512	B1	19960731		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4710527	A	19871201	US 1986-901624	19860829
AU 8663698	A	19870416	AU 1986-63698	19861009
AU 593026	B2	19900201		
JP 62116584	A	19870528	JP 1986-241178	19861009
JP 07064850	B	19950712		
CA 1287057	C	19910730	CA 1986-520346	19861010
AT 140921	T	19960815	AT 1986-307878	19861010
ES 2090005	T3	19961016	ES 1986-307878	19861010

PRIORITY APPLN. INFO.: US 1985-786798 A 19851011

US 1986-901624 A 19860829

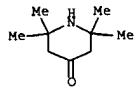
ED Entered STN: 14 Nov 1987

AB Polyolefins, especially polypropylene (I) contain light stabilizing malonate-derived 1,5-dioxa-9-azaspiroacetal derivs. optionally having alkylpiperidin-4-yl moiety. Heating 25.1 g triacetonamine with 35.2 g di-Et bis(hydroxymethyl)malonate in 360 mL cyclohexane in the presence of 30.4 g p-toluenesulfonic acid at reflux for 10 h, adding 17.6 g malonate compound, heating 18 h at reflux, cooling, extracting, and drying gave an orange viscose liquid having b.p. 135-145° at 0.15 mm. Purification of the above liquid gave a di-Et ester (II) compound of which 0.25% II with 0.2% stearyl β-(3,5-di-tert-butyl-4- hydroxyphenyl)propionate was compounded with I (Profax 6301) and molded into a 5 mil thick film having light stability (weatherometer) 1860 h to failure, vs. 300 without II.

IT **826-36-8**, Triacetone amine
(acetalization of, with di-Et bis(hydroxymethyl)malonate)

RN 826-36-8 HCAPLUS

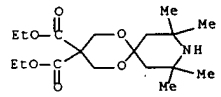
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **110844-29-6 110844-30-9 110844-31-0 110844-32-1 110844-33-2 110844-34-3 110872-19-0**
(light stabilizers, for polypropylene, preparation of)

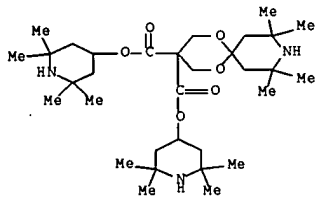
RN 110844-29-6 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, diethyl ester (9CI) (CA INDEX NAME)



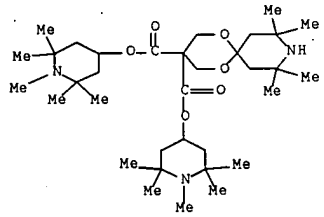
RN 110844-30-9 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



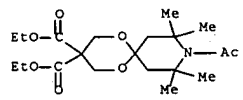
RN 110844-31-0 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



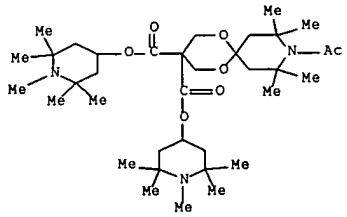
RN 110844-32-1 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 9-acetyl-8,8,10,10-tetramethyl-, diethyl ester (9CI) (CA INDEX NAME)

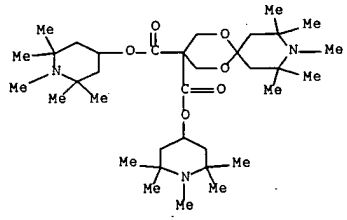


RN 110844-33-2 HCAPLUS

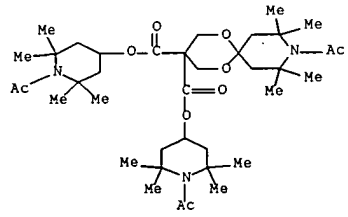
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 9-acetyl-8,8,10,10-tetramethyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 110844-34-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,9,10,10-pentamethyl-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



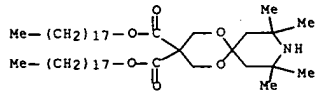
RN 110872-19-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 9-acetyl-8,8,10,10-tetramethyl-, bis(1-acetyl-2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



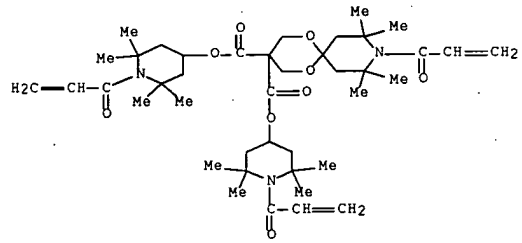
IT **110844-35-4P 110844-36-5P 111941-74-3P,**

4-Amino-2,2,6,6-tetramethylpiperidine
(preparation of)

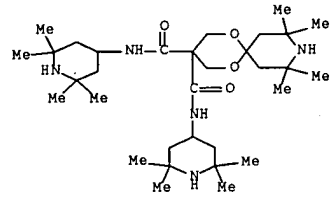
RN 110844-35-4 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, dioctadecyl ester (9CI) (CA INDEX NAME)



RN 110844-36-5 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-9-(1-oxo-2-propenyl)-, bis[2,2,6,6-tetramethyl-1-(1-oxo-2-propenyl)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



RN 111941-74-3 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxamide, 8,8,10,10-tetramethyl-N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



IC ICM C07D491-10
ICS C08K005-34
ICI C07D491-10, C07D319-00, C07D221-00
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 28
IT **826-36-8**, Triacetone amine
(acetalization of, with di-Et bis(hydroxymethyl)malonate)
IT **110844-29-6 110844-30-9 110844-31-0**
110844-32-1 110844-33-2 110844-34-3
110872-19-0
(light stabilizers, for polypropylene, preparation of)
IT **110844-35-4P 110844-36-5P 111941-74-3P**,
4-Amino-2,2,6,6-tetramethylpiperidine
(preparation of)

L63 ANSWER 17 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:577181 HCAPLUS Full-text
DOCUMENT NUMBER: 107:177181
TITLE: Oligomeric malonates, useful as light stabilizers for plastics
INVENTOR(S): Nelson, Richard Victor; Stephen, John Fergus
PATENT ASSIGNEE(S): ICI Americas, Inc., USA
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

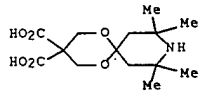
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 219333	A2	19870422	EP 1986-307879	19861010
EP 219333	A3	19881012		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4689360	A	19870825	US 1986-903442	19860904
AU 8663697	A	19870416	AU 1986-63697	19861009
AU 584466	B2	19890525		
JP 62135480	A	19870618	JP 1986-241179	19861009
JP 2534993	B2	19960918		
CA 1287056	C	19910730	CA 1986-520345	19861010
PRIORITY APPLN. INFO.:			US 1985-786798 A	19851011
			US 1986-903442 A	19860904

ED Entered STN: 14 Nov 1987
AB Polyolefins, especially polypropylene (I) contain light stabilizing oligomeric derivs. of dialkyl esters of polyalkyl-1,5-dioxa-9- azaspiro[5.5]undecane-3,3-dicarboxylic acid. Heating 8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undecane-3,3- dicarboxylic acid di-Et ester (prepared from 25.1 g triacetonamine and 35.2 g di-Et bis(hydroxymethyl)malonate condensate) with 1.4 g 2,2-dimethyl-1,3-propanediol at 150° under N in presence of LiNH2 for 18 h gave liquid from which was isolated 2.83 g white powdered (II) having mol. weight 1500-2000. I containing 0.2% stearyl β-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate and 0.25% II was extruded at 200° and molded at 188°/6000 psi to give sheets showing light resistance (weatherometer) 3050 h to failure vs. 300 without II.
IT **110839-54-8 110839-55-9 110839-56-0**
110839-57-1 110839-58-2 110839-60-6
110839-61-7 110839-62-8 110839-63-9

110839-64-0 110839-69-5 110839-70-8
110839-71-9 110839-72-0 110839-73-1
110839-74-2 110839-75-3 110839-76-4
110839-77-5 110839-78-6
(oligomeric, light stabilizers, for polyolefins)
RN 110839-54-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, polymer with 2,2-dimethyl-1,3-propanediol (9CI) (CA INDEX NAME)

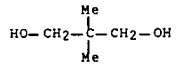
CM 1

CRN 110839-53-7
CMF C14 H23 N O6



CM 2

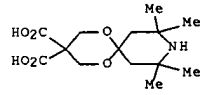
CRN 126-30-7
CMF C5 H12 O2



RN 110839-55-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, polymer with 2-ethyl-2-methyl-1,3-propanediol (9CI) (CA INDEX NAME)

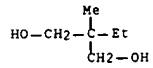
CM 1

CRN 110839-53-7
CMF C14 H23 N O6



CM 2

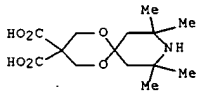
CRN 77-84-9
CMF C6 H14 O2



RN 110839-56-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, polymer with 2,2-diethyl-1,3-propanediol (9CI) (CA INDEX NAME)

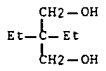
CM 1

CRN 110839-53-7
CMF C14 H23 N O6



CM 2

CRN 115-76-4
CMF C7 H16 O2

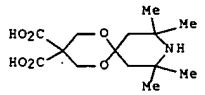


RN 110839-57-1 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

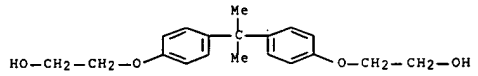
CRN 110839-53-7

CMF C14 H23 N O6



CM 2

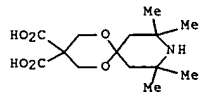
CRN 901-44-0
CMF C19 H24 O4



RN 110839-58-2 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, polymer with 1,6-hexanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110839-53-7
CMF C14 H23 N O6



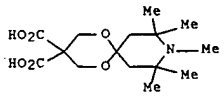
CM 2

CRN 629-11-8
CMF C6 H14 O2

RN 110839-60-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,9,10,10-pentamethyl-, polymer with 2,2-dimethyl-1,3-propanediol (9CI) (CA INDEX NAME)

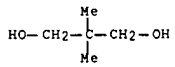
CM 1

CRN 110839-59-3
CMF C15 H25 N O6



CM 2

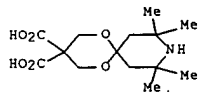
CRN 126-30-7
CMF C5 H12 O2



RN 110839-61-7 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, polymer with 1,4-cyclohexanedimethanol (9CI) (CA INDEX NAME)

CM 1

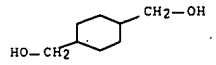
CRN 110839-53-7
CMF C14 H23 N O6



CM 2

CRN 105-08-8

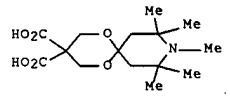
CMF C8 H16 O2



RN 110839-62-8 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,9,10,10-pentamethyl-, polymer with 1,4-cyclohexanedimethanol (9CI) (CA INDEX NAME)

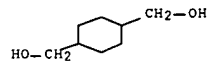
CM 1

CRN 110839-59-3
CMF C15 H25 N O6



CM 2

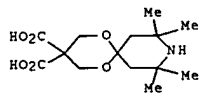
CRN 105-08-8
CMF C8 H16 O2



RN 110839-63-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110839-53-7
CMF C14 H23 N O6



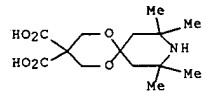
CM 2

CRN 110-63-4
CMF C4 H10 O2

RN 110839-64-0 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

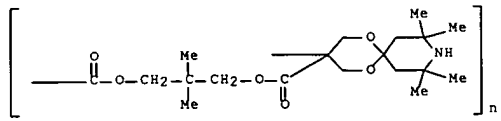
CRN 110839-53-7
CMF C14 H23 N O6



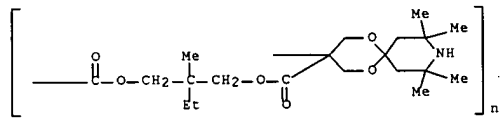
CM 2

CRN 124-09-4
CMF C6 H16 N2

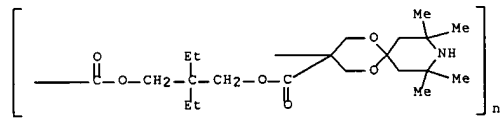
RN 110839-69-5 HCAPLUS
CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxy(2,2-dimethyl-1,3-propanediyl)oxycarbonyl] (9CI) (CA INDEX NAME)



RN 110839-70-8 HCAPLUS
CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxy(2-ethyl-2-methyl-1,3-propanediyl)oxycarbonyl] (9CI) (CA INDEX NAME)

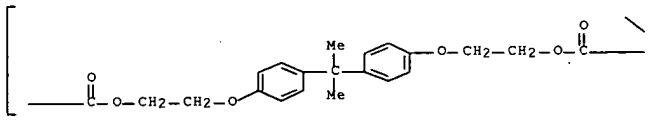


RN 110839-71-9 HCAPLUS
CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxy(2,2-diethyl-1,3-propanediyl)oxycarbonyl] (9CI) (CA INDEX NAME)

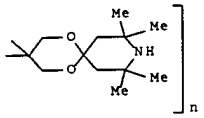


RN 110839-72-0 HCAPLUS
CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxy-1,2-ethanediyloxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,2-ethanediyloxycarbonyl] (9CI) (CA INDEX NAME)

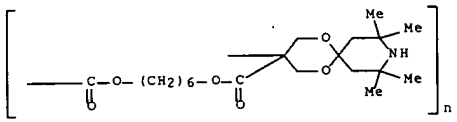
PAGE 1-A



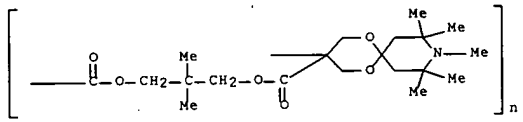
PAGE 1-B



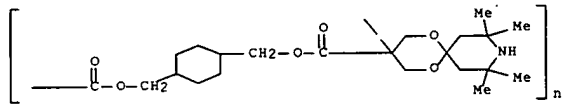
RN 110839-73-1 HCAPLUS
CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxy-1,6-hexanediyloxycarbonyl] (9CI) (CA INDEX NAME)



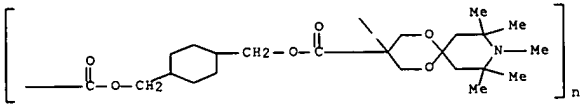
RN 110839-74-2 HCAPLUS
CN Poly[(8,8,9,10,10-pentamethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxy(2,2-dimethyl-1,3-propanediyl)oxycarbonyl] (9CI) (CA INDEX NAME)



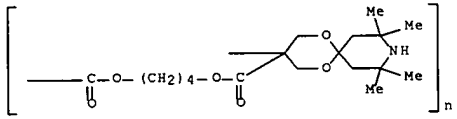
RN 110839-75-3 HCAPLUS
CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxymethylene-1,4-cyclohexanediylmethyleneoxycarbonyl] (9CI) (CA INDEX NAME)



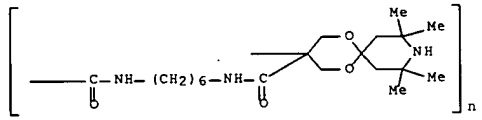
RN 110839-76-4 HCAPLUS
CN Poly[(8,8,9,10,10-pentamethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxymethylene-1,4-cyclohexanediylmethyleneoxycarbonyl] (9CI) (CA INDEX NAME)



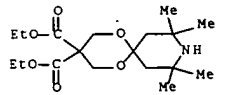
RN 110839-77-5 HCAPLUS
CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonyloxy-1,4-butanediyloxycarbonyl] (9CI) (CA INDEX NAME)



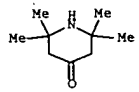
RN 110839-78-6 HCAPLUS
CN Poly[(8,8,10,10-tetramethyl-1,5-dioxa-9-azaspiro[5.5]undec-3-ylidene)carbonylimino-1,6-hexanediyliminocarbonyl] (9CI) (CA INDEX NAME)



IT **110844-29-6P**
(preparation of)
RN 110844-29-6 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,8,10,10-tetramethyl-, diethyl ester (9CI) (CA INDEX NAME)



IT **826-36-8**, Triacetone amine
(reaction of, with di-Et bis(hydroxymethyl)malonate)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C07D519-00
ICS C08G063-68; C08G069-26; C08K005-34
ICI C07D519-00, C07D491-00
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 28
IT **110839-54-8 110839-55-9 110839-56-0**
110839-57-1 110839-58-2 110839-60-6
110839-61-7 110839-62-8 110839-63-9
110839-64-0 110839-69-5 110839-70-8
110839-71-9 110839-72-0 110839-73-1
110839-74-2 110839-75-3 110839-76-4
110839-77-5 110839-78-6
(oligomeric, light stabilizers, for polyolefins)
IT **110844-29-6P**
(preparation of)
IT **826-36-8**, Triacetone amine
(reaction of, with di-Et bis(hydroxymethyl)malonate)

L63 ANSWER 18 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:577180 HCAPLUS Full-text
DOCUMENT NUMBER: 107:177180
TITLE: Tartrate-based compounds useful as stabilizers for polymers
INVENTOR(S): Nelson, Richard Victor; Stephen, John Fergus
PATENT ASSIGNEE(S): ICI Americas, Inc., USA
SOURCE: Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

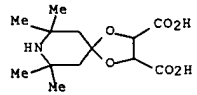
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 219331	A2	19870422	EP 1986-307875	19861010

EP 219331	A3	19881005		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4690963	A	19870901	US 1986-902781	19860902
AU 8663694	A	19870416	AU 1986-63694	19861009
AU 593025	B2	19900201		
JP 62161787	A	19870717	JP 1986-241182	19861009
JP 07116196	B	19951213		
CA 1287054	C	19910730	CA 1986-520343	19861010
PRIORITY APPLN. INFO.:			US 1985-786797	A 19851011
			US 1986-902781	A 19860902

ED Entered STN: 14 Nov 1987
AB Polyolefins, especially polypropylene contain light stabilizing tartrate-derived 1,4-dioxa-8-azaspiroacetal ester or amide (oligomers) having polyalkylpiperidin-4-yl moiety. Heating 4.24 g 7,7,9,9-tetramethyl-4,4-dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic di-Et ester (prepared from acetalization of di-Et tartrate 15.0, triacetoneamine hydrate 12.6, and methanesulfonic acid 13.95 g in 1,2-dichloroethane) with 4.09 g 2,2,6,6-tetramethylpiperidin-4-ol in 70 mL ligroine under reflux in presence of LiNH2 for 17 h gave a viscose liquid containing the solid stabilizer.
IT **110839-51-5P 110839-52-6P 110839-67-3P**
110839-68-4P
(oligomeric, preparation of, as light stabilizers for polyolefins)
RN 110839-51-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7,9,9-tetramethyl-, polymer with 2,2-dimethyl-1,3-propanediol (9CI) (CA INDEX NAME)

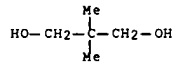
CM 1

CRN 110839-50-4
CMF C13 H21 N O6



CM 2

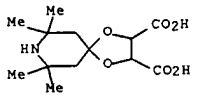
CRN 126-30-7
CMF C5 H12 O2



RN 110839-52-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7,9,9-tetramethyl-, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

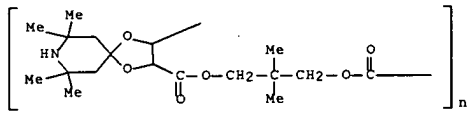
CRN 110839-50-4
CMF C13 H21 N O6



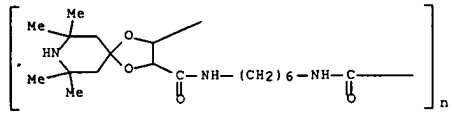
CM 2

CRN 124-09-4
CMF C6 H16 N2

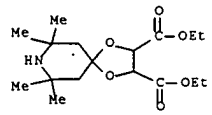
RN 110839-67-3 HCAPLUS
CN Poly[(7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4.5]decane-2,3-diyl)carbonyloxy(2,2-dimethyl-1,3-propanediyl)oxycarbonyl] (9CI) (CA INDEX NAME)



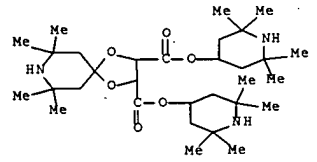
RN 110839-68-4 HCAPLUS
CN Poly[(7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4.5]decane-2,3-diyl)carbonylimino-1,6-hexanediyliminocarbonyl] (9CI) (CA INDEX NAME)



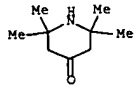
IT **110844-27-4P**
(preparation and esterification of, with tetramethylpiperidinol)
RN 110844-27-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7,9,9-tetramethyl-, diethyl ester (9CI) (CA INDEX NAME)



IT **110844-28-5P**
(preparation of, as light stabilizers for polyolefins)
RN 110844-28-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7,9,9-tetramethyl-, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



IT **826-36-8**
(reaction of, with di-Et tartrate)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

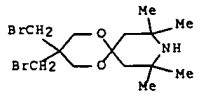


IC ICM C07D491-10
ICS C07D519-00; C08G069-26; C08G063-68; C08K005-34
ICI C07D491-00, C07D317-00, C07D221-00; C07D519-00, C07D491-00
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 28
IT **110839-51-5P 110839-52-6P 110839-67-3P**
110839-68-4P
(oligomeric, preparation of, as light stabilizers for polyolefins)
IT **110844-27-4P**
(preparation and esterification of, with tetramethylpiperidinol)
IT **110844-28-5P**
(preparation of, as light stabilizers for polyolefins)
IT **826-36-8**
(reaction of, with di-Et tartrate)

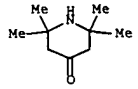
L63 ANSWER 19 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:5962 HCAPLUS Full-text
DOCUMENT NUMBER: 106:5962
TITLE: Polymerizable dihalo derivatives of sterically hindered piperidine
INVENTOR(S): Vass, Frantisek; Manasek, Zdenek; Luston, Jozef
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 2 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 225050	B1	19840213	CS 1982-4209	19820607
PRIORITY APPLN. INFO.:			CS 1982-4209	19820607

OTHER SOURCE(S): CASREACT 106:5962
ED Entered STN: 11 Jan 1987
AB Compound I is used to prepare nonvolatile and nonextractable polymeric light stabilizers for polymers and is prepared by azeotropic condensation of 2,2,6,6-tetramethyl-4-oxopiperidine with 1,3-dibromo-2,2-dihydroxymethylpropane in boiling hydrocarbons in the presence of an acid catalyst. Thus, I (m.p. 92-94°) was prepared from 0.03 mol starting compds. and 6 g 4-MeC6H4SO3H in benzene.
IT **105683-18-9P**
(preparation of, as light stabilizers for polymers)
RN 105683-18-9 HCAPLUS
CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3-bis(bromomethyl)-8,8,10,10-tetramethyl- (9CI) (CA INDEX NAME)



IT **826-36-8**, 2,2,6,6-Tetramethyl-4-oxopiperidine
(reaction of, with dibromodihydroxymethyl propane)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



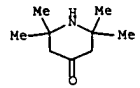
IC C07D491-113
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 28
IT **105683-18-9P**
(preparation of, as light stabilizers for polymers)
IT **826-36-8**, 2,2,6,6-Tetramethyl-4-oxopiperidine
(reaction of, with dibromodihydroxymethyl propane)

L63 ANSWER 20 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:472091 HCAPLUS Full-text
DOCUMENT NUMBER: 103:72091
TITLE: Manufacture of piperidine stabilizers for synthetic resins
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 60054391	A	19850328	JP 1983-163734		19830905
JP 04047676	B	19920804			
CA 1267900	A1	19900417	CA 1984-461765		19840824
US 4578410	A	19860325	US 1984-644680		19840827
EP 141502	A2	19850515	EP 1984-306002		19840831
EP 141502	A3	19860226			
EP 141502	B1	19890125			
R: CH, DE, FR, GB, IT, LI, NL					
CA 1282785	C	19910409	CA 1985-480524		19850501
PRIORITY APPLN. INFO.:			JP 1983-163734	A	19830905
			JP 1984-94371	A	19840510

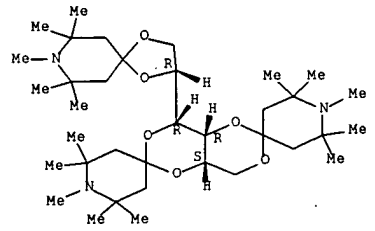
JP 1984-103362 A 19840521

ED Entered STN: 07 Sep 1985
AB The title compds. I (R = H, C1-3 alkyl), useful as synthetic resin stabilizers, were prepared by treating the appropriate piperidone with sorbitol [50-70-4]. Thus, stirring 2,2,6,6-tetramethyl-4-piperidone [**826-36-8**] (as hydrochloride) with sorbitol for 3 h at 110-120° gave 78% I (R = H) [**97605-81-7**], which stabilized polypropylene [9003-07-0] in terms of weatherproofing, retention of tensile strength, and discoloration more effectively than known stabilizers.
IT **826-36-8**
(cycloacetalization of, with sorbitol)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

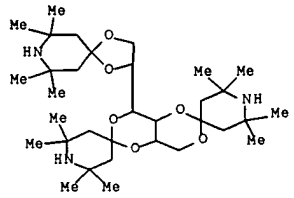


IT **97605-80-6P 97605-81-7P**
(manufacture of, as stabilizers for polypropylene)
RN 97605-80-6 HCAPLUS
CN D-Glucitol, 1,3:2,4:5,6-tris-O-(1,2,2,6,6-pentamethyl-4-piperidinylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

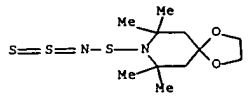


RN 97605-81-7 HCAPLUS
CN D-Glucitol, 1,3:2,4:5,6-tris-O-(2,2,6,6-tetramethyl-4-piperidinylidene)- (9CI) (CA INDEX NAME)

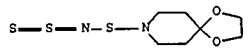


IC ICM C07D519-00
ICS C08K005-34
ICI C07D519-00, C07D491-113, C07D491-22
CC 37-2 (Plastics Manufacture and Processing)
Section cross-reference(s): 33
IT **826-36-8** 5554-54-1
(cycloacetalization of, with sorbitol)
IT **97605-80-6P 97605-81-7P**
(manufacture of, as stabilizers for polypropylene)

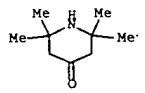
L63 ANSWER 21 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:15503 HCAPLUS Full-text
DOCUMENT NUMBER: 94:15503
TITLE: Studies on 1-(thiosulfinylaminothio)piperidines
AUTHOR(S): Morimura, Syoji; Horiuchi, Hideo; Tamura, Chihiro; Yoshioka, Takao
CORPORATE SOURCE: Cent. Res. Lab., Sankyo Co., Ltd., Tokyo, 140, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1980), 53(6), 1666-9
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 94:15503
ED Entered STN: 12 May 1984
AB The 1-(thiosulfinylaminothio)piperidines I (R1 = R2 = H, R1R2 = O, OCH2CH2O, R1 = H, R2 = PhCO2) were obtained from the corresponding piperidines, S2Cl2 and NH3. These compds. were also prepared from bis(2,2,6,6-tetramethylpiperidino) disulfides or bis(2,2,6,6- tetramethylpiperidino) trisulfides under similar reaction conditions. In much lower yields, unhindered 1-(thiosulfinylaminothio)piperidines II (R1 = R2 = H; R1R2 = OCH2O) were also obtained. The photochem. and thermal stabilities of I and II were nearly the same. Reaction pathways were discussed.
IT **65446-58-4P**
(preparation and photochem. of)
RN 65446-58-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-8-sulfenamide, 7,7,9,9-tetramethyl-N-sulfinothioyl- (9CI) (CA INDEX NAME)



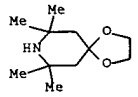
IT **69585-19-9P**
(preparation of)
RN 69585-19-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-8-sulfenamide, N-sulfinothioyl- (9CI) (CA INDEX NAME)



IT **826-36-8 36793-27-8**
(reaction of, with sulfur monochloride and ammonia)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



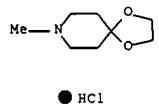
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
IT **65446-58-4P** 69585-15-5P 69585-17-7P 69585-18-8P 75135-93-2P
(preparation and photochem. of)
IT 14045-12-6P **69585-19-9P**
(preparation of)
IT 768-66-1 **826-36-8** 2403-88-5 **36793-27-8**

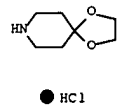
(reaction of, with sulfur monochloride and ammonia)

L63 ANSWER 22 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:180441 HCAPLUS Full-text
DOCUMENT NUMBER: 92:180441
TITLE: Determination of hydration equilibrium constants and pKa values of 4-piperidones in buffered water solutions
AUTHOR(S): Van Luppen, J. J.; Lepoivre, J. A.; Dommisse, R. A.; Alderweireldt, F. C.
CORPORATE SOURCE: Lab. Org. Chem., Univ. Antwerp (Rijks Univ. Cent. Antwerpen), Antwerp, B-2020, Belg.
SOURCE: Organic Magnetic Resonance (1979), 12(7), 399-404
CODEN: ORMRBD; ISSN: 0030-4921
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB 1H and 13C chemical shift parameters are reported for 4-piperidones and their derivs. in buffered aqueous solution The 13C shift increments of Me substituents on the N atom are discussed. The pH-shift dependence was studied in detail and pKa values are given for ketone forms and hydration products. The hydration equilibrium were measured as a function of pH and temperature
IT **28286-09-1 42899-11-6**
(acidity of, NMR determination of)
RN 28286-09-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 8-methyl-, hydrochloride (8CI, 9CI) (CA INDEX NAME)



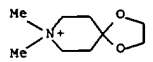
● HCl

RN 42899-11-6 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, hydrochloride (9CI) (CA INDEX NAME)



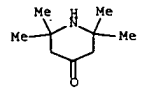
● HCl

IT **73390-10-0**
(carbon-13 NMR of)
RN 73390-10-0 HCAPLUS
CN 1,4-Dioxa-8-azoniaspiro[4.5]decane, 8,8-dimethyl-, iodide (9CI) (CA INDEX NAME)

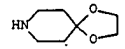


● I⁻

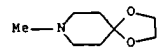
IT **826-36-8**
(hydration of, NMR study of)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **177-11-7 28286-05-7**
(proton and carbon-13 NMR of)
RN 177-11-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 28286-05-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 8-methyl- (8CI, 9CI) (CA INDEX NAME)



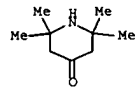
CC 22-8 (Physical Organic Chemistry)
IT **28286-09-1** 33973-59-0 34737-83-2 40064-34-4 41979-39-9
42899-11-6 73390-09-7
(acidity of, NMR determination of)
IT 26822-30-0 **73390-10-0**
(carbon-13 NMR of)
IT **826-36-8** 1445-73-4 26822-37-7 41661-47-6
(hydration of, NMR study of)
IT **177-11-7 28286-05-7** 73390-11-1 73390-12-2

(proton and carbon-13 NMR of)

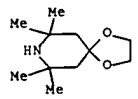
L63 ANSWER 23 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1976:181068 HCAPLUS Full-text
DOCUMENT NUMBER: 84:181068
TITLE: 4,4-(o-Phenylenedioxy)-2,2,6,6-tetramethylpiperidine
INVENTOR(S): Murayama, Keisuke; Toda, Toshimasa; Mori, Eiko; Matsui, Katsuaki; Kurumada, Tomoyuki; Onta, Noriyuki; Watanabe, Ichiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3940401	A	19760224	US 1974-491489	19740724
US 3790525	A	19740205	US 1972-219133	19720119
PRIORITY APPLN. INFO.:			US 1972-219133	A3 19720119
			US 1973-336981	A1 19730301

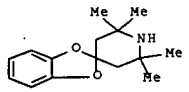
ED Entered STN: 12 May 1984
AB The title compound (I) [**36793-29-0**], 4,4-dibutoxy-2,2,6,6-tetramethylpiperidine (II, n = 3) [36793-25-6], 4,4-bis(octyloxy)- 2,2,6,6-tetramethylpiperidine (II, n = 7) [36793-26-7], and 1,4-dioxa-8-aza-7,7,9,9-tetramethylspiro[4.5]decane (III) [**36793-27-8**] are prepared from **alcs**. or diols and triacetonamine [**826-36-8**] and used as light stabilizers for vinyl, nylon, and urethane plastics. Thus, triacetonamine 23.4, BuOH 23.2, and p-MeC6H4SO3H 30 g were refluxed 44 hr in 150 ml C6H6 to give II (n = 3). II (n = 3) when used at the 0.25% level in polypropylene [9003-07-0] extended the embrittlement time from 100 to 620 hr.
IT **826-36-8**
(ketalization of, with **alcs**. and diols)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



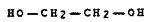
IT **36793-27-8P 36793-29-0P**
(preparation of, as light stabilizers for plastics)
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



RN 36793-29-0 HCAPLUS
CN Spiro[1,3-benzodioxole-2,4'-piperidine], 2',2',6',6'-tetramethyl- (9CI) (CA INDEX NAME)



IT **107-21-1**, reactions
(with triacetonamine)
RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



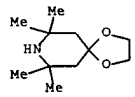
IC C07D
INCL 260293580
CC 36-2 (Plastics Manufacture and Processing)
Section cross-reference(s): 28, 27
IT **826-36-8**
(ketalization of, with **alcs**. and diols)
IT 36793-25-6P 36793-26-7P **36793-27-8P 36793-29-0P**
(preparation of, as light stabilizers for plastics)
IT 71-36-3, reactions **107-21-1**, reactions 120-80-9, reactions
(with triacetonamine)

L63 ANSWER 24 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:464630 HCAPLUS Full-text
DOCUMENT NUMBER: 81:64630
TITLE: 4-Piperidone ketal derivatives and their use as stabilizers
INVENTOR(S): Murayama, Keisuke; Toda, Toshimasa; Mori, Eiko; Matsui, Katsuaki; Kurumada, Tomoyuki; Ohta, Noriyuki; Watanabe, Ichiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd.
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

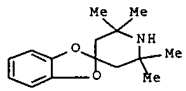
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3790525	A	19740205	US 1972-219133	19720119
US 3862155	A	19750121	US 1973-336982	19730301
US 3940401	A	19760224	US 1974-491489	19740724
PRIORITY APPLN. INFO.:			US 1972-219133	A3 19720119
			US 1973-336981	A1 19730301

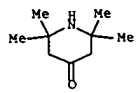
ED Entered STN: 12 May 1984
AB Light and heat stability of synthetic polymers were improved by addition of ketals of 4-piperidone, I(R = C1-8 alkyl) and II(Z = ethylene, trimethylene, propylene, o-C6H4. Triacetonamine [**826-36-8**] 23.4, octanol [111-87-5] 23.2, and p-MeC6H4SO3H 30 g in 150 ml C6H6 were refluxed 44 hr with H2O distillation to give 4,4-dioctoxy-2,2,6,6- tetramethylpiperidine (I;R = octyl) [36793-26-7]. Polypropylene [9003-07-0] containing 0.25% I(R = octyl) had brittleness time in accelerated uv aging at 45.deg. 620 hr compared to 100 hr for a sample without I.
IT **36793-27-8 36793-29-0**
(heat- and light-stabilizers, for plastics)
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



RN 36793-29-0 HCAPLUS
CN Spiro[1,3-benzodioxole-2,4'-piperidine], 2',2',6',6'-tetramethyl- (9CI) (CA INDEX NAME)



IT **826-36-8**
(reaction of, with **alcs**.)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **107-21-1**, reactions
(with triacetonamine)
RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

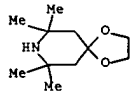
IC C08F; C08G
INCL 260045800NZ
CC 36-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 27
IT 36793-25-6 36793-26-7 **36793-27-8 36793-29-0**
(heat- and light-stabilizers, for plastics)
IT **826-36-8**
(reaction of, with **alcs**.)
IT 71-36-3, reactions **107-21-1**, reactions 120-80-9, reactions
(with triacetonamine)

L63 ANSWER 25 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:59875 HCAPLUS Full-text
DOCUMENT NUMBER: 80:59875
TITLE: 4,4-Dialkoxy-2,2,6,6-tetramethylpiperidines, polymer stabilizers
INVENTOR(S): Murayama, Keisuke; Toda, Toshimasa; Mori, Eiko; Matsui, Katsuaki; Kurumada, Tomoyuki; Ohta, Noriyuki; Watanabe, Ichiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd.
SOURCE: Brit., 7 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

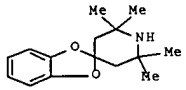
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1336403	A	19731107	GB 1972-3281	19720124
PRIORITY APPLN. INFO.:			GB 1972-3281 A	19720124

ED Entered STN: 12 May 1984
AB The 4,4-dialkoxy-2,2,6,6-tetramethylpiperidines [I, R = Bu, Me(CH2)7; R2 = (CH2)3, o-C6H4] were prepared by reaction of 2,2,6,6-tetramethyl-4- piperidone with the appropriate **alc**. or glycol in refluxing C6H6 in the presence of p-MeC6H4SO3H. I stabilize synthetic polymers. Thus, 0.5 mm thick sheets of 100 parts polypropylene containing I (R2 = o-C6H4) 0.25 parts became brittle after

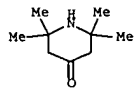
1000 hr exposure to uv irradiation at 45° as compared with 100 hr for polypropylene containing no 1.
IT **36793-27-8P 36793-29-0P**
(preparation of)
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



RN 36793-29-0 HCAPLUS
CN Spiro[1,3-benzodioxole-2,4'-piperidine], 2',2',6',6'-tetramethyl- (9CI) (CA INDEX NAME)



IT **826-36-8**
(reaction of, with **alcs**.)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **107-21-1**, reactions
(with tetramethylpiperidone)
RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

IC C07D; C08K

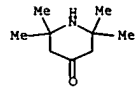
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 36
IT 36793-25-6P 36793-26-7P **36793-27-8P 36793-29-0P**
(preparation of)
IT **826-36-8**
(reaction of, with **alcs.**)
IT 71-36-3, reactions **107-21-1**, reactions 111-87-5
120-80-9, reactions
(with tetramethylpiperidone)

L63 ANSWER 26 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:27899 HCAPLUS Full-text
DOCUMENT NUMBER: 80:27899
TITLE: Triacetonamine ketal stabilizers
INVENTOR(S): Murayama, Keisuke; Toda, Toshimasa; Mori, Eiko; Matsui, Katsuaki; Kurumada, Tomoyuki; Ohta, Noriyuki; Watanabe, Ichiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd.
SOURCE: Ger. Offen., 20 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

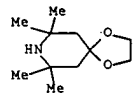
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2203533	A1	19730816	DE 1972-2203533	19720121
PRIORITY APPLN. INFO.:			DE 1972-2203533 A	19720121

ED Entered STN: 12 May 1984
AB The ketals I [R = R1 = Bu or n-C8H17, RR1 = o-phenylene (II) or CH2CH2] were prepared by ketalization of triacetonamine (III) and used as heat and light stabilizers in polymers, e.g. polypropylene (IV) [9003-07-0], nylon 6 [25038-54-4], or polyurethanes. Thus, refluxing III and o-(HO)2C6H4 in C6H6 containing p-MeC6H4SO3H gave 2,2,6,6-tetramethyl-4,4-(o-phenylenedioxy)piperidine (II) [**36793-29-0**]. Samples from 100 parts IV and 0.25 part II turned brittle (on heating at 45.deg. under uv irradiation) after 1000 hr vs. 100 hr for IV containing no II.
IT **107-21-1**, reactions
(ketalization by, of triacetonamine)
RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

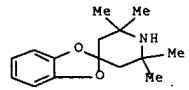
IT **826-36-8**
(ketalization of)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **36793-27-8 36793-29-0**
(stabilizers, for polymers)
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



RN 36793-29-0 HCAPLUS
CN Spiro[1,3-benzodioxole-2,4'-piperidine], 2',2',6',6'-tetramethyl- (9CI) (CA INDEX NAME)



IC C07D
CC 36-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 27, 28
IT 71-36-3, reactions **107-21-1**, reactions 111-87-5
120-80-9, reactions
(ketalization by, of triacetonamine)
IT **826-36-8**
(ketalization of)
IT 36793-25-6 36793-26-7 **36793-27-8 36793-29-0**
(stabilizers, for polymers)

L63 ANSWER 27 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:148638 HCAPLUS Full-text
DOCUMENT NUMBER: 78:148638
TITLE: N-Substituted piperidine derivatives as stabilizers
INVENTOR(S): Murayam, Keisuki; Morimura, Syoji; Yoshioka, Takao; Toda, Toshimasa; More, Eiko; Horiuchi, Hideo; Higashida, Susumu; Matsui, Katsuaki; Kurumada, Tomoyuki; et al.

PATENT ASSIGNEE(S): Sankyo Co., Ltd.
SOURCE: S. African, 54 pp.
CODEN: SFXXAB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

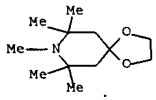
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 7201227	A	19721129	ZA 1972-1227	19720224
JP 54016980	B	19790626	JP 1971-90988	19711113
PRIORITY APPLN. INFO.:			JP 1971-90988 A	19711113

ED Entered STN: 12 May 1984

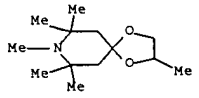
AB Seventeen N-substituted piperidine derivs. I (R = C1-8 alkyl, C3-5 alkenyl, C3-5 alkynyl, aralkyl, HOCH2CH2, or CH2CH2O2CR2, R1 = C2-3 alkylene, o-C6H4, or Q, R2 = alkyl or alkenyl, n = 4-6) were prepared and used as heat and light stabilizers for polypropylene [9003-07-0], polyethylene [9002-88-4], nylon 6 [25038-54-4], PVC [9002-86-2], and ABS (acrylonitrile-butadiene-styrene plastic) [9003-56-9]. For example, triacetonamine was condensed with HOCH2CH2OH in benzene in the presence of p-MeC6H4SO3H to give P-aza-7,7,9,9-tetramethyl-1,4- dioxaspiro[4.5]decane (II) [**36793-27-8**] which was methylated with MeI to give P-aza-7,7,8,9,9--pentamethyl-1,4- dioxaspiro[4.5]decane (I, R = Me, R1 = CH2CH2) (III) [**40372-36-9**]. A 0.5 mm thick Noblen JHH-G sheet containing 0.25 phr III had uv resistance (brittle time, 45.deg.) 520 hr, compared with 80 hr for a sheet not containing III.

IT **40372-36-9 41650-79-7 41650-80-0**
41650-81-1 41650-82-2 41650-83-3
41650-84-4 41650-85-5 41650-86-6
41650-88-8 41650-89-9 41650-90-2
41650-91-3 41650-92-4 41650-93-5
(heat and light stabilizers, for thermoplastics)

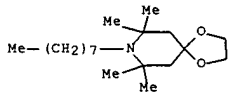
RN 40372-36-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,8,9,9-pentamethyl- (9CI) (CA INDEX NAME)



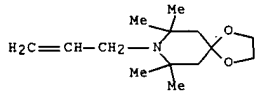
RN 41650-79-7 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 2,7,7,8,9,9-hexamethyl- (9CI) (CA INDEX NAME)



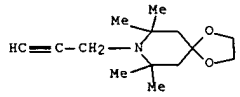
RN 41650-80-0 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-octyl- (9CI) (CA INDEX NAME)



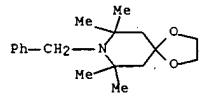
RN 41650-81-1 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-(2-propenyl)- (9CI) (CA INDEX NAME)



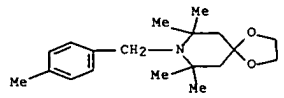
RN 41650-82-2 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-(2-propynyl)- (9CI) (CA INDEX NAME)



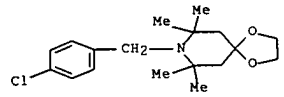
RN 41650-83-3 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-(phenylmethyl)- (9CI) (CA INDEX NAME)



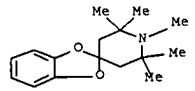
RN 41650-84-4 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-[(4-methylphenyl)methyl]- (9CI) (CA INDEX NAME)



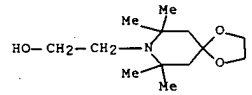
RN 41650-85-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 8-[(4-chlorophenyl)methyl]-7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)



RN 41650-86-6 HCAPLUS
CN Spiro[1,3-benzodioxole-2,4'-piperidine], 1',2',2',6',6'-pentamethyl- (9CI) (CA INDEX NAME)

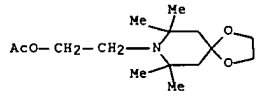


RN 41650-88-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-8-ethanol, 7,7,9,9-tetramethyl- (9CI) (CA INDEX NAME)

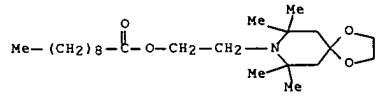


RN 41650-89-9 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-8-ethanol, 7,7,9,9-tetramethyl-,

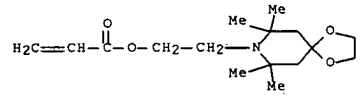
acetate (ester) (9CI) (CA INDEX NAME)



RN 41650-90-2 HCAPLUS
CN Decanoic acid, 2-(7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4.5]dec-8-yl)ethyl ester (9CI) (CA INDEX NAME)

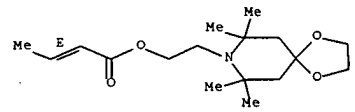


RN 41650-91-3 HCAPLUS
CN 2-Propenoic acid, 2-(7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4.5]dec-8-yl)ethyl ester (9CI) (CA INDEX NAME)



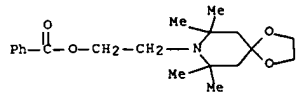
RN 41650-92-4 HCAPLUS
CN 2-Butenoic acid, 2-(7,7,9,9-tetramethyl-1,4-dioxa-8-azaspiro[4.5]dec-8-yl)ethyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

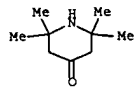


RN 41650-93-5 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane-8-ethanol, 7,7,9,9-tetramethyl-,

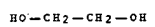
benzoate (ester) (9CI) (CA INDEX NAME)



IT **826-36-8**
(reaction of, with ethylene glycol)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **107-21-1**, reactions
(with triacetonamine)
RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



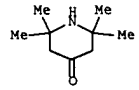
IC C07D
CC 36-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 27, 28
IT **40372-36-9 41650-79-7 41650-80-0**
41650-81-1 41650-82-2 41650-83-3
41650-84-4 41650-85-5 41650-86-6
41650-87-7 **41650-88-8 41650-89-9**
41650-90-2 41650-91-3 41650-92-4
41650-93-5
(heat and light stabilizers, for thermoplastics)
IT **826-36-8**
(reaction of, with ethylene glycol)
IT **107-21-1**, reactions 120-80-9, reactions
(with triacetonamine)

L63 ANSWER 28 OF 28 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:137445 HCAPLUS Full-text
DOCUMENT NUMBER: 78:137445
TITLE: 4-Piperidone ketal derivatives for stabilizing polymers
INVENTOR(S): Murayama, Keisuke; Toda, Toshimasa; Mori, Eiko;

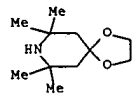
Matsui, Katsuaki; Kurumada, Tomoyuki; Ohta, Noriyuki; Watanabe, Ichiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd.
SOURCE: S. African, 22 pp.
CODEN: SFXXAB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ZA 7200459		19720824	ZA 1972-459	19720124

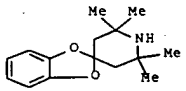
ED Entered STN: 12 May 1984
AB Heterocyclic heat and light stabilizers (I, R = Bu, C8H17; II, X = CH2CH2, o-C6H4) were manufactured from 2,2,6,6-tetramethyl-4-piperidone (III) [**826-36-8**] and mono or di-OH compds. in presence of an acid catalyst and were effective at 0.01-5.0 weight % concentration in polyamides, PVC, polyolefins, and polyurethanes. Butyl **alc.** [71-36-3] 23.2, III 23.4, and p-toluenesulfonic acid 30 g were refluxed in benzene 44 hr to give 4,4-dibutoxy-2,2,6,6-tetramethylpiperidine (IV) [36793-25-6], b4 123-4.deg.. Polypropylene [9003-07-0] containing 0.25% IV had a brittleness time under uv light at 45.deg. of 620 hr compared to 100 hr for unstabilized polymer.
IT **826-36-8**
(reaction of, with diols or monohydric **alcs.**)
RN 826-36-8 HCAPLUS
CN 4-Piperidinone, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT **36793-27-8 36793-29-0**
(stabilizers, for plastics)
RN 36793-27-8 HCAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl- (7CI, 9CI) (CA INDEX NAME)



RN 36793-29-0 HCAPLUS
CN Spiro[1,3-benzodioxole-2,4'-piperidine], 2',2',6',6'-tetramethyl- (9CI) (CA INDEX NAME)



IT **107-21-1**, reactions
(with triacetonamine)
RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

IC C08F
CC 36-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 27, 28
IT **Alcohols**, reactions
(with tetramethylpiperidone)
IT **826-36-8**
(reaction of, with diols or monohydric **alcs.**)
IT 36793-25-6 36793-26-7 **36793-27-8 36793-29-0**
(stabilizers, for plastics)
IT 71-36-3, reactions **107-21-1**, reactions 120-80-9, reactions
(with triacetonamine)

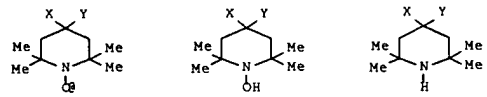
=> d 179 1-17 ibib abs fhit

L79 ANSWER 1 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 143:477849 CASREACT Full-text
TITLE: Process for the preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines
INVENTOR(S): Osterholt, Clemens; Poll, Heinz-Guenter; Meyer, Oliver; Kuebelbaeck, Thomas
PATENT ASSIGNEE(S): Degussa A.-G., Germany
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1595868	A1	20051116	EP 2005-102210	20050321
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				

DE 102004023640	A1	20051208	DE 2004-102004023640040510	
NZ 539707	A	20060331	NZ 2005-539707	20050429
CA 2506407	A1	20051110	CA 2005-2506407	20050506
NO 2005002262	A	20051111	NO 2005-2262	20050506
AU 2005201928	A1	20051124	AU 2005-201928	20050506
CN 1699345	A	20051123	CN 2005-10071281	20050509
BR 2005001796	A	20060110	BR 2005-1796	20050509
US 2005256312	A1	20051117	US 2005-125149	20050510

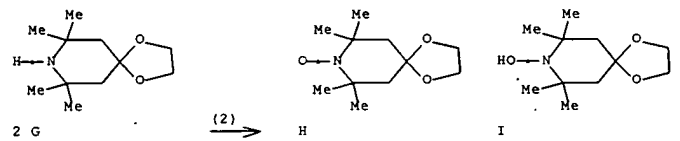
PRIORITY APPLN. INFO.: DE 2004-102004023640040510
OTHER SOURCE(S): MARPAT 143:477849
GI



I II III

AB The process for the preparation of 4-substituted N-oxo- and N-hydroxy-2,2,6,6-tetramethylpiperidines, I [XY = O, OCH2CH2O, OCHMeCH2O, OCH(CH2OH)CH2O, O(CH2)3O, OCH2CMe2CH2O; X = OR1; Y = OR2; R1, R2 = Me, Et, CH2Et, CHMe2, Bu, CH2CHMe2] and II, resp., comprises oxidation of III with H2O2 in the presence of an alkali and/or an ammonium hydrogen carbonate and in the presence of a solution medium, and is characterized by addition to the reaction of a Bronsted acid that is stronger than the hydrogen carbonate. Thus, triacetonamine ethylene ketal (III; XY = OCH2CH2O) is treated with aqueous H2O2 and NaHCO3 to which H3PO4 is added yielding I (XY = OCH2CH2O) and II (XY = OCH2CH2O) in 78% overall yield.

RX(2) OF 2 2 G ===> **H** + I



2 G (2) H I

RX(2) RCT G 36793-27-8
RGT D 7722-84-1 H2O2, E 144-55-8 NaHCO3, J 7664-38-2 H3PO4
PRO H **150980-92-0**, I 869353-09-3
SOL 7732-18-5 Water
CON 4 hours, 60 deg C, pH 9.2
NTE 77% overall yield, addition of catalysts reduce yields
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR

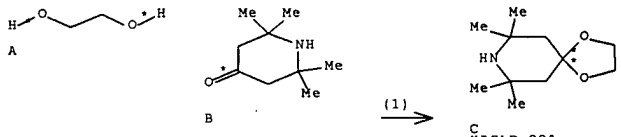
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L79 ANSWER 2 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:260733 CASREACT Full-text
TITLE: Preparation of piperidone ketals by condensing alcohols with piperidones in the presence polyphosphoric acid.
INVENTOR(S): Weerawarna, S. Ananda; Jewell, Richard A.
PATENT ASSIGNEE(S): Weyerhaeuser Company, USA
SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1457491	A1	20040915	EP 2004-251389	20040310
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
US 2004192920	A1	20040930	US 2003-390354	20030314
US 6852860	B2	20050208		
CA 2458736	A1	20040914	CA 2004-2458736	20040225
JP 2004307478	A	20041104	JP 2004-72188	20040315
PRIORITY APPLN. INFO.:			US 2003-390354	20030314

OTHER SOURCE(S): MARPAT 141:260733
AB A method for making piperidone ketals comprises condensing a suitable alc. with a piperidone in the presence of polyphosphoric acid. Thus, ethylene glycol, 2,2,6,6-tetramethyl-4-piperidone, and polyphosphoric acid were heated together at 65° for 6 h with stirring to give 88% 2,2,6,6-tetramethyl-4-piperidone ethylene ketal.

RX(1) OF 1 A + B ===> C



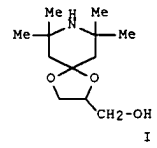
RX(1) RCT A 107-21-1, B 826-36-8
PRO C **36793-27-8**
SOL 107-21-1 (CH2OH)2
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 6 hours, 65 deg C

NTE polyphosphoric acid was used
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L79 ANSWER 3 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:174161 CASREACT Full-text
TITLE: Process for the preparation of ketals of triacetoneamine
INVENTOR(S): Meyer, Oliver; Uhlenberg, Renate; Korell, Michael
PATENT ASSIGNEE(S): Degussa A.-G., Germany
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

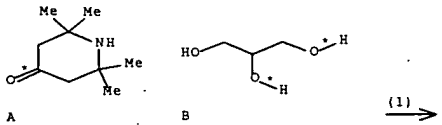
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1443049	A1	20040804	EP 2003-104546	20031204
EP 1443049	B1	20050330		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
DE 10304055	A1	20040812	DE 2003-10304055	20030201
US 2004152920	A1	20040805	US 2003-619436	20030716
AT 292130	T	20050415	AT 2003-104546	20031204
NO 2004000461	A	20040802	NO 2004-461	20040202
PRIORITY APPLN. INFO.:			DE 2003-10304055	20030201

OTHER SOURCE(S): MARPAT 141:174161
GI

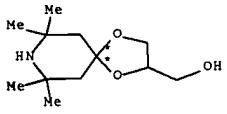


AB A procedure for the ketalization of triacetoneamine is characterized by reaction of triacetoneamine with a hydroxy compound with one or more hydroxy groups in the presence of gaseous HCl with the formation of a cyclic ketal. Thus, 2-(hydroxymethyl)-7,7,9,9-tetramethyl-1,4-dioxa-8- azaspiro[4,5]decane (I) was prepared from triacetoneamine and glycerin in PhMe contg HCl.

RX(1) OF 4 A + B ===> C



A B (1)



C
YIELD 76%

RX(1) RCT A 826-36-8, B 56-81-5

STAGE(1)
SOL 108-88-3 PhMe
CON 80 deg C

STAGE(2)
RGT D 7647-01-0 HCl
CON SUBSTAGE(1) 80 deg C
SUBSTAGE(2) 80 deg C -> room temperature

STAGE(3)
RGT E 1310-73-2 NaOH
SOL 7732-18-5 Water
CON room temperature, pH 11

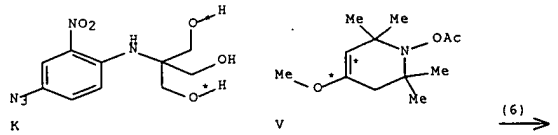
PRO C **53825-32-4**

L79 ANSWER 4 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 133:331672 CASREACT Full-text
TITLE: Synthesis and Characterization of Novel Spin-Labeled Photoaffinity Nonnucleoside Analogues of ATP as Structural and EPR Probes for Myosin
AUTHOR(S): Chen, Xiaoru; Grammer, Jean; Cooke, Roger; Pate, Edward; Yount, Ralph G.
CORPORATE SOURCE: Department of Pure and Applied Mathematics Department of Chemistry, Washington State University School of Molecular Biosciences, Pullman, WA, 99164, USA
SOURCE: Bioconjugate Chemistry (2000), 11(5), 725-733 CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society

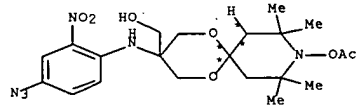
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two new spin-labeled photoreactive nonnucleoside ATP analogs, 1-(4-azido-2-nitrophenyl)amino-3-(1-oxyl-2,2,5,5- tetramethylpyrrolidinyl-3-carbamido)-2-Pr triphosphate (SL-NANTP) and 2-(4-azido-2-nitrophenyl)amino-2,2-(1-oxyl-2,2,6,6-tetramethyl-4- piperidylidene)di(oxymethylene) Et triphosphate (SSL-NANTP), were synthesized and characterized. This study aims to develop a second generation of NANTP-based analogs containing immobile spin labels that can be used to monitor conformational changes in myosin during the contractile cycle of muscle. Previous studies have shown that both a photoaffinity nonnucleoside ATP analog, 2-[(4-azido-2- nitrophenyl)amino] Et triphosphate (NANTP) [Nakamaye et al. (1985) Biochem. 24, 5226-5235], and a photoaffinity ATP analog, 3'(2')-O-4-[4-oxo-(4-amino-2,2,6,6-tetramethyl-piperidino-1-oxyl)-4- benzoyl] benzoyl ATP (SL-Bz2ATP) [Wang et al. (1999) J. Muscle Res. Cell Motil. 20, 743-753], behave like ATP in their interactions with myosin. Remarkably, photolabeled myosin recovers all of its normal enzymic properties after treatment with actin in the presence of MgATP [Luo et al. (1995) Biochem. 34, 1978-1987]. For SL-NANTP, the spin label moiety is attached to NANTP via an aminomethyl side chain. In SSL-NANTP, attachment is via a restricted spiro ring. The two new probes interact with myosin subfragment-1 (S1) in a manner analogous to ATP, and after photoincorporation, labeled S1 recovers full activity after treatment with actin and MgATP. The ESR (EPR) spectrum resulting from S1 photolabeled with SL-NANTP shows a very high degree of probe mobility. However, the EPR spectrum of S1 photolabeled with SSL-NANTP shows that the probe is highly immobilized with respect to S1, constrained to move within a cone of angle 52° (full-width, half-max). Unlike the parent, NANTP, which photolabels on the 23 kDa tryptic fragment of S1, SSL-NANTP photolabels on the 20 kDa fragment. Its highly immobile nature means that it is potentially a useful reporter group to monitor cross-bridge motion in muscle fibers.

RX(6) OF 21 ...K + V ===> W...



K V (6)



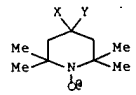
W
YIELD 32%

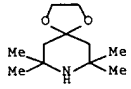
RX(6) RCT K 304010-73-9, V 137063-52-6
RGT X 104-15-4 TsOH
PRO W **304010-74-0**
SOL 109-99-9 THF
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L79 ANSWER 5 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 120:270121 CASREACT Full-text
TITLE: N-Oxyl derivatives of 2,2,6,6-tetramethylpiperidine and their preparation
INVENTOR(S): Kaufhold, Manfred; Bueschken, wilfried; Bickert, Peter
PATENT ASSIGNEE(S): Huels AG, Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4219471	A1	19931216	DE 1992-4219471	19920613
EP 574666	A1	19931222	EP 1993-106039	19930414
R: BE, CH, DE, FR, GB, IT, LI, NL				
JP 06087830	A	19940329	JP 1993-138726	19930610

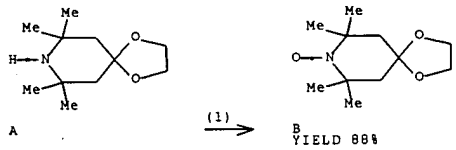
PRIORITY APPLN. INFO.: DE 1992-4219471 19920613
OTHER SOURCE(S): MARPAT 120:270121
GI


I


II

AB Title radicals I [X = Y = OR1; R1 = Me, Et, Pr, Bu, iso-Bu; or XY = OCH2CH2O, OCHMeCH2O, OCH2CMe2CH2O; or Y = H and X = OR2; R2 = Pr, iso-Pr, Bu, iso-Bu, tert-Bu, CH2CMe:CH2] are claimed, as is their preparation by oxidation of corresponding tetramethylpiperidines with H2O2 under the catalysis of bivalent metal salts (especially alkaline earth metals and Zn). For example, oxidation of the ethylene glycol ketal II in H2O containing Mg(OH)2 with 30% H2O2 at 70° gave I (XY = OCH2CH2O) in 88% yield and 96% purity. Also prepared were I (Y = H; X = OMe, OEt, OBu, OCH2CMe:CH2) in 87-92% yield and 97.8-99.2% purity, using aqueous MgCl2 catalyst in MeOH at 65°.

RX(1) OF 5 A ===> B

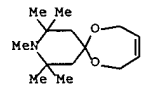

A (1) B YIELD 88%

RX(1) RCT A 36793-27-8
RGT C 7722-84-1 H2O2
PRO B **150980-92-0**
CAT 1309-42-8 Magnesium hydroxide (Mg(OH)2)
SOL 7732-18-5 Water
NTE 70°

L79 ANSWER 6 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 119:8840 CASREACT Full-text
TITLE: 9,9,10,11,11-Pentamethyl-1,6-dioxa-10-azaspiro[6.5]dodec-3-ene
INVENTOR(S): Luston, Jozef; Vass, Frantisek
PATENT ASSIGNEE(S): Ceskoslovenska Akademie Ved, Czech.
SOURCE: Czech., 4 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 274982	B2	19911217	CS 1989-223	19890112

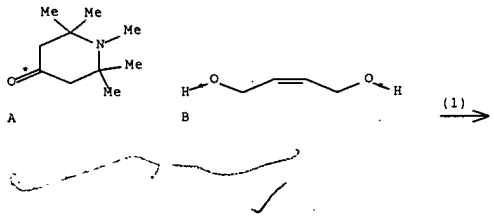
PRIORITY APPLN. INFO.: CS 1989-223 19890112
GI

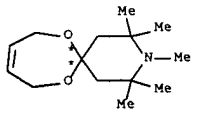

I

AB The title compound (I), suitable as a light stabilizer for polymers and as a precursor for polymeric light stabilizers, was prepared by cyclocondensation reaction of 1,2,2,6,6-pentamethyl-4-oxopiperidine (II) with cis-HOCH2CH:CHCH2OH (III) in an aromatic solvent which forms an azeotrope with H2O (e.g., C6H6, PhMe, xylene) containing an acidic catalyst [e.g., p-MeC6H4SO3H

(IV)]. Thus, II 2.51, III 1.41, and IV.H2O 3.05 g in refluxing C6H6 gave 3.3 g (92%) I. At 0.1 weight part per 100 weight parts polypropylene, I extended irradiation time to carbonyl index 0.2 from 200 h to 1280 h.

RX(1) OF 1 A + B ===> C





C
YIELD 92%

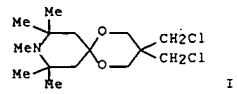
RX(1) RCT A 5554-54-1, B 6117-80-2
RGT D 104-15-4 TsOH
PRO C **148084-57-5**
SOL 71-43-2 Benzene

L79 ANSWER 7 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 119:8818 CASREACT Full-text
TITLE: 3,3-Bis(chloromethyl)-8,8,9,10,10-pentamethyl-1,5-dioxa-9-azaspiro[5.5]undecane, useful as a light stabilizer
INVENTOR(S): Luston, Jozef; Vass, Frantisek
PATENT ASSIGNEE(S): Ceskoslovenska Akademie Ved, Czech.
SOURCE: Czech., 4 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 274981	B2	19911217	CS 1989-222	19890112

PRIORITY APPLN. INFO.: CS 1989-222 19890112

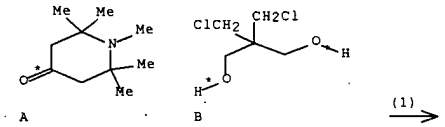
GI

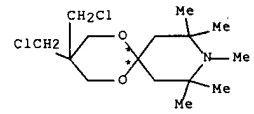


I

AB The title compound (I), suitable as a light stabilizer for polymers and as a precursor for polymeric light stabilizers, was prepared by cyclocondensation reaction of 1,2,2,6,6-pentamethyl-4-oxopiperidine (II) with (HOCH2)2C(CH2Cl)2 (III) in an aromatic solvent which forms an azeotrope with H2O (e.g., C6H6, PhMe, or xylene) containing an acidic catalyst (e.g., 4-MeC6H4SO3H (IV)]. Thus, II 2.51, III 2.77, and IV.H2O 3.05 g in refluxing C6H6 40 mL gave 4.9 g (100%) I. At 0.1 weight part per 100 weight parts polypropylene, I extended irradiation time to carbonyl index of 0.2 from 200 h to 1100 h.

RX(1) OF 1 A + B ===> C





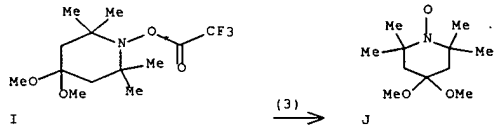
C
YIELD 100%

RX(1) RCT A 5554-54-1, B 2209-86-1
RGT D 104-15-4 TsOH
PRO C **148084-56-4**
SOL 71-43-2 Benzene

L79 ANSWER 8 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 117:191078 CASREACT Full-text
TITLE: The rotation-dominated ring inversion/nitrogen inversion/rotation process in N-acyloxy-2,2,6,6-tetramethylpiperidines. A dynamic NMR study
AUTHOR(S): Anderson, J. Edgar; Corrie, John E. T.
CORPORATE SOURCE: Chem. Dep., Univ. Coll., London, WC1E 6BT, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1992), (7), 1027-31
CODEN: JCPKBH; ISSN: 0300-9580
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The temperature dependence of the NMR of the title compds. is discussed in terms of a conformational process which involves ring inversion, N inversion and rotation about the N-O bond. N inversion contributes ca. 11 kcal mol-1 to the observed barriers, so in the compds. with higher barriers, steric interaction of the acyl and Me groups during rotation dets. the barrier height.

RX(3) OF 9 I ===> **J**...



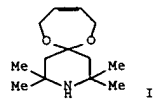
I J

RX(3) RCT I 143876-44-2
RGT K 1310-58-3 KOH, L 7782-44-7 O2
PRO J **85916-00-3**
SOL 67-56-1 MeOH

L79 ANSWER 9 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 112:55930 CASREACT Full-text
TITLE: Preparation of 2,2,4,4-tetramethyl-7,12-dioxa-3-azaspiro[5.6]dodec-9-ene as a polymer stabilizer
INVENTOR(S): Luston, Jozef; Vass, Frantisek
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 4 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Slovak
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 259250	B1	19881014	CS 1987-3203	19870506
PRIORITY APPLN. INFO.:			CS 1987-3203	19870506

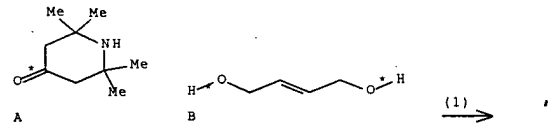
GI



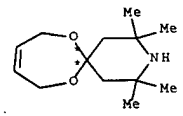
I

AB A mixture of 0.2 mol 2,2,6,6-tetramethyl-4-oxopiperidine, 0.22 mol 4-MeC6H4SO3H, and 300 mL PhMe was refluxed to remove water, 0.22 mol HOCH2CH:CHCH2OH was added, and the mixture was refluxed an addnl. 4 h with separation of water to give 93% title compound (I) which stabilizes polymers against photodegrdn. Thus, exposing a polypropylene sheet containing 0.1% 2,6,4-(Me3C)2MeC6H2OH, 0.15% Ca stearate, and 0.2% I for 1720 h to UV light from a Hg lamp of 125 W gave comparable degradation effects produced in sheets free of additives after 240 h irradiation

RX(1) OF 1 A + B ===> **C**



A B



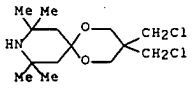
C

RX(1) RCT A 826-36-8, B 110-64-5
PRO C **124791-45-3**

L79 ANSWER 10 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 111:116299 CASREACT Full-text
TITLE: Manufacture of 3,3-bis(chloromethyl)-8,8,10,10-tetramethyl-9-aza-1,5-dioxaspiro[5.5]undecane as a light stabilizer for polymers
INVENTOR(S): Luston, Jozef; Vass, Frantisek; Smieskova, Edita
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 3 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Slovak
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 254696	B1	19880115	CS 1986-7370	19861013

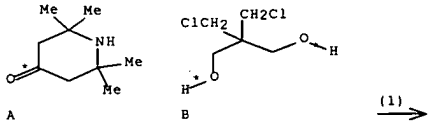
PRIORITY APPLN. INFO.: CS 1986-7370 19861013
GI



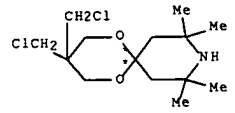
I

AB The title compound I is prepared in 97% yield by refluxing equimolar amts. of 2,2,6,6-tetramethyl-4-oxopiperidine, 4-MeC6H4SO3H, and (HOCH2)2C(CH2Cl)2 in C6H6 or xylene with removal of water. Polypropene containing I 0.2, 2,6-di-tert-butyl-4-methylphenol 0.1, and Ca stearate 0.15% was resistant to photodegrdn. for 1780 h, vs. 220 without stabilizers.

RX(1) OF 1 A + B ===> C



A B (1)



C

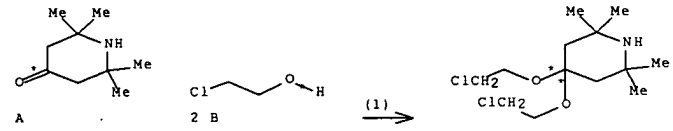
RX(1) RCT A 826-36-8, B 2209-86-1
PRO C **122508-96-7**

L79 ANSWER 11 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 111:97091 CASREACT Full-text
TITLE: Preparation of 4,4-bis(2-chlorethoxy)-2,2,6,6-tetramethylpiperidine as a polymer photostabilizer
INVENTOR(S): Luston, Jozef; Vass, Frantisek; Smieskova, Edita
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 3 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Slovak
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 254697	B1	19880115	CS 1986-7371	19861013

PRIORITY APPLN. INFO.: CS 1986-7371 19861013
AB Refluxing 2,2,6,6-tetramethyl-4-oxopiperidine with a double molar amount of ClCH2CH2OH in C6H6 or xylene in the presence of 4-MeC6H4SO3H gives 94-7% the title compound which at 0.2%, stabilized polypropylene sheets against photodegrdn.

RX(1) OF 1 A + 2 B ===> C



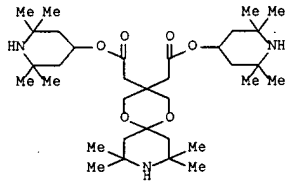
A 2 B (1) C

RX(1) RCT A 826-36-8, B 107-07-3
PRO C **122138-90-3**

L79 ANSWER 12 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 110:174446 CASREACT Full-text
TITLE: Monomeric and oligomeric cyclic acetal light stabilizers for plastics
INVENTOR(S): Nelson, Richard Victor; Stephen, John Fergus
PATENT ASSIGNEE(S): ICI Americas, Inc., USA
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 291238	A2	19881117	EP 1988-304095	19880506
EP 291238	A3	19890920		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4804699	A	19890214	US 1987-50077	19870515
ZA 8803120	A	19890530	ZA 1988-3120	19880502
AU 8815825	A	19881117	AU 1988-15825	19880509
FI 8802231	A	19881116	FI 1988-2231	19880512
BR 8802307	A	19881213	BR 1988-2307	19880512
DK 8802655	A	19881116	DK 1988-2655	19880513
NO 8802097	A	19881116	NO 1988-2097	19880513
JP 01052780	A	19890228	JP 1988-119058	19880516
PRIORITY APPLN. INFO.:			US 1987-50077	19870515
OTHER SOURCE(S):		MARPAT 110:174446		

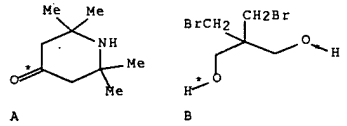
GI



I

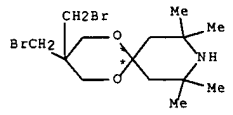
AB Monomeric and oligomeric derivs. of the dialkyl esters of alkyl 1,5-dioxa-9-azaspiro[5.5]undecane-3,3-diacetic acid are light stabilizers for polyolefins. Refluxing 25 mmol 2,2,6,6- tetramethylpiperidin-4-one monohydrate with 25 mmol dibromoneopentyl glycol in 100 mL cyclohexane in the presence of p-MeC6H4SO3H for 6 h gave a dibromo acetal, adding KCN gave the corresponding dinitrile, and hydrolyzing, esterifying, and transesterifying with 2,2,6,6-tetramethylpiperidin-4-ol gave I. I, polyester derivs. of I with 2,2-dimethyl-1,3-propanediol, or polyamide derivative of I with 1,6-hexanediamine was added (0.25%) with 0.2% stearyl β-3,5-di-tert-butyl-4-hydroxyphenylpropionate to polypropylene and each of the above mixture compression molded 6000 psi/188° to give films with light resistance 8-10 times that of polypropylene alone.

RX(1) OF 2 A + B ===> C



A B

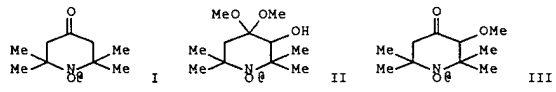
(1)



C

RX(1) RCT A 826-36-8, B 3296-90-0
PRO C **105683-18-9**

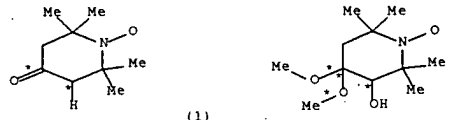
L79 ANSWER 13 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 106:32779 CASREACT Full-text
TITLE: Hypervalent iodine oxidation. Synthesis of spin labeled, 1-oxyl-2,2,6,6-tetramethylpiperidine derivatives
AUTHOR(S): Moriarty, Robert M.; Prakash, Indra; Penmasta, Raju
CORPORATE SOURCE: Dep. Chem., Univ. Illinois, Chicago, IL, 60680, USA
SOURCE: Journal of Heterocyclic Chemistry (1985), 22(6), 1581-2
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I II III

AB Oxidation of 1-oxyl-2,2,6,6-tetramethyl-4-piperidone I with [I,I-bis(acetoxy)iodo]benzene in methanolic KOH gave 1-oxyl-4,4-dimethoxy-3-hydroxy-2,2,6,6-tetramethylpiperidine II. Treatment of 2,2,6,6-tetramethyl-4-piperidone with [I,I-bis(acetoxy)iodo]benzene in methanolic KOH gave 3-methoxy-2,2,6,6-tetramethyl-4-piperidone which on oxidation with 30% H2O2 and catalytic amount of Na2WO4 gave 1-oxyl-3-methoxy-2,2,6,6- tetramethyl-4-piperidone III. The ESR spectra of II as well as III show three lines.

RX(1) OF 4 A ===> **B**



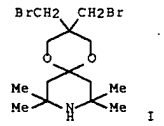
A B

RX(1) RCT A 2896-70-0
RGT C 3240-34-4 PhI(OAc)2, D 1310-58-3 KOH
PRO B **105703-58-0**
SOL 67-56-1 MeOH

L79 ANSWER 14 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 106:5962 CASREACT Full-text
TITLE: Polymerizable dihalo derivatives of sterically hindered piperidine
INVENTOR(S): Vass, Frantisek; Manasek, Zdenek; Luston, Jozef
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 2 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 225050	B1	19840213	CS 1982-4209	19820607

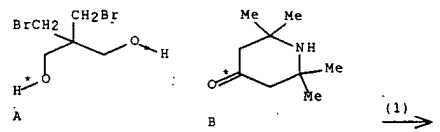
PRIORITY APPLN. INFO.: CS 1982-4209 19820607
GI



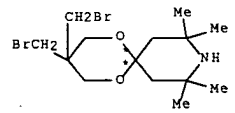
I

AB Compound I is used to prepare nonvolatile and nonextractable polymeric light stabilizers for polymers and is prepared by azeotropic condensation of 2,2,6,6-tetramethyl-4-oxopiperidine with 1,3-dibromo-2,2-dihydroxymethylpropane in boiling hydrocarbons in the presence of an acid catalyst. Thus, I (m.p. 92-94°) was prepared from 0.03 mol starting compds. and 6 g 4-MeC6H4SO3H in benzene.

RX(1) OF 1 A + B ===> **C**



A B

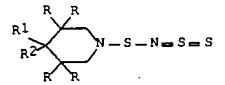


C

RX(1) RCT A 3296-90-0, B 826-36-8
PRO C **105683-18-9**

L79 ANSWER 15 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 94:15503 CASREACT Full-text
TITLE: Studies on 1-(thiosulfinylaminothio)piperidines
AUTHOR(S): Morimura, Syoji; Horiuchi, Hideo; Tamura, Chihiro; Yoshioka, Takao
CORPORATE SOURCE: Cent. Res. Lab., Sankyo Co., Ltd., Tokyo, 140,

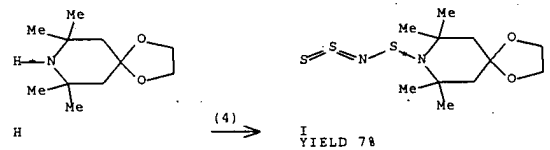
Japan
SOURCE: Bulletin of the Chemical Society of Japan (1980), 53(6), 1666-9
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I, R=Me
II, R=H

AB The 1-(thiosulfinylaminothio)piperidines I (R1 = R2 = H, R1R2 = O, OCH2CH2O, R1 = H, R2 = PhCO2) were obtained from the corresponding piperidines, S2Cl2 and NH3. These compds. were also prepared from bis(2,2,6,6-tetramethylpiperidino) disulfides or bis(2,2,6,6- tetramethylpiperidino) trisulfides under similar reaction conditions. In much lower yields, unhindered 1-(thiosulfinylaminothio)piperidines II (R1 = R2 = H; R1R2 = OCH2O) were also obtained. The photochem. and thermal stabilities of I and II were nearly the same. Reaction pathways were discussed.

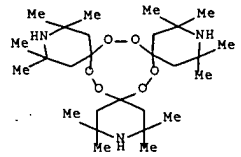
RX(4) OF 9 H ===> I



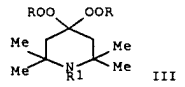
RX(4) RCT H 36793-27-8
PRO I **65446-58-4**

L79 ANSWER 16 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 93:186100 CASREACT Full-text
TITLE: Synthesis of triacetonamine peroxides and their oxidation to stable nitroxyl radicals with intact peroxy groups; a new class of nitroxyl radicals
AUTHOR(S): Schulz, Manfred; Likowski, Klaus
CORPORATE SOURCE: Sekt. Chem., Tech. Hochsch. "Carl Schorlemmer", Leuna-Merseburg, DDR-4200, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Chemie (1980), 20(2), 53

CODEN: ZECEAL; ISSN: 0044-2402
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



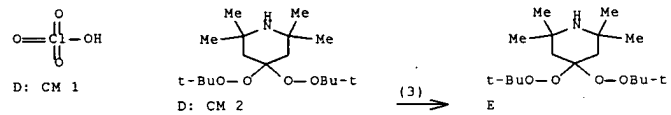
II



III

AB Reaction of triacetonamine (I) with an equimolar amount of 30% H2O2 in the presence of excess H2SO4 gave the trimeric peroxide II, whereas reaction with excess 73% H2SO4 with careful addition of concentrate H2SO4 gave III (R = R1 = H; IV), which with Me2CO and P2O5 gave III (RR = CMe2, R1 = H). Reaction of IV with BzCl/pyridine or Me3COOH/HClO4 gave III.BzOH (R = Bz,R1 = H) and III.HClO4 (R = CMe3, R1 = H), resp. Oxidation of III (R1 = H; R = CMe3; RR = CMe2) with 30% H2O2 gave the corresponding nitroxyl radicals III (R1 = O•), which decomposed to give isobutylene.

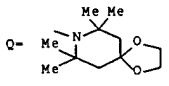
RX(3) OF 11 D ===> **E**...



RX(3) RCT D 75279-30-0
PRO E **75279-29-7**

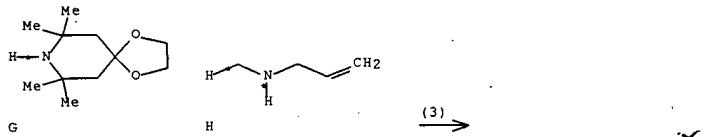
L79 ANSWER 17 OF 17 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 91:5135 CASREACT Full-text
TITLE: A metalated allylurea with sterically protected carbonyl group as new d3-reagent
AUTHOR(S): Hassel, Tillmann; Seebach, Dieter
CORPORATE SOURCE: Inst. Org. Chem., Univ. Giessen, Giessen, D-6300, Fed. Rep. Ger.
SOURCE: Angewandte Chemie (1979), 91(5), 427-8
CODEN: ANCEAD; ISSN: 0044-8249
DOCUMENT TYPE: Journal
LANGUAGE: German

GI

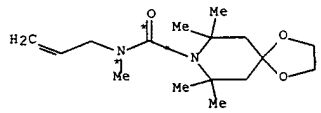


AB The acetal QCONMeCH2CH:CH2 were lithiated to give QCONMeCHLiCH:CH2 and QCONMeCH:CHCH2Li, which were treated with MgBr2 to give Grignard reagent. Reaction of the Grignard reagent with electrophiles gave QCONMeCH:CHCH2R (I, R = Me, octyl, CHEtOH, CHPhOH, CMeEtOH, CEt2OH, CPh2OH) and QCONMeCH(CH:CH2)C8H17. I underwent acid-catalyzed solvolysis to give e.g. (MeO)2CH0C10H21 and 2-methoxy-5- phenyltetrahydrofuran.

RX(3) OF 26 G + H ===> I...



G H



I

RX(3) RCT G 36793-27-8, H 627-37-2
PRO I **69961-43-9**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L5         6348 SEA ABB=ON  PLU=ON  491.117.1/RID
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L7      1054055 SEA ABB=ON  PLU=ON  46.156.1/RID
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L37         742 SEA ABB=ON  PLU=ON  L9
L38          36 SEA ABB=ON  PLU=ON  L12
L39        1572 SEA ABB=ON  PLU=ON  L33 OR L34 OR L35 OR L38
L40          30 SEA ABB=ON  PLU=ON  L39 AND (L36 OR L37)
L41          16 SEA ABB=ON  PLU=ON  L24
L42           0 SEA ABB=ON  PLU=ON  L39 AND L41
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L44         38069 SEA ABB=ON  PLU=ON  L14
L45         27408 SEA ABB=ON  PLU=ON  L15
L46         21617 SEA ABB=ON  PLU=ON  L16
L47          1441 SEA ABB=ON  PLU=ON  L17
L48             2 SEA ABB=ON  PLU=ON  L40 AND ((L43 OR L44 OR L45 OR L46 OR
                  L47))
L49         70918 SEA ABB=ON  PLU=ON  L18
L50         48227 SEA ABB=ON  PLU=ON  L19
L51          5413 SEA ABB=ON  PLU=ON  L20
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L53        112275 SEA ABB=ON  PLU=ON  (L49 OR L50 OR L51 OR L52)
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L56             2 SEA ABB=ON  PLU=ON  L54 AND L55
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L59             7 SEA ABB=ON  PLU=ON  L40 AND ALCO?
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L62            30 SEA ABB=ON  PLU=ON  L40 OR L42 OR L54 OR L59
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L65            17 SEA ABB=ON  PLU=ON  KORELL M?/AU
L66           837 SEA ABB=ON  PLU=ON  MEYER O?/AU
L67             1 SEA ABB=ON  PLU=ON  L64 AND L65 AND L66
L68           852 SEA ABB=ON  PLU=ON  (L64 OR L65 OR L66)
L69             2 SEA ABB=ON  PLU=ON  L68 AND L40
L70             2 SEA ABB=ON  PLU=ON  L68 AND L39
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L79            17 SEA SSS FUL L77 (    50 REACTIONS)
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